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BULLETIN

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NO. 1.

Home Sanitation

Not only the skilled sanitarian, health officer, man of science or medical man can become a practical sanitarian, but each head of a family and each individual can become a health officer, providing, in a measure, proper sanitation for his immediate home and surroundings. The physical training and development of physical manhood of the Spartans did not depend more on laws and customs than on home influence and self-education. So to-day the healthfulness of the home and the consequent vigor of the family do not depend, or should not, more on the man of science and technical learning than on the care, education, habits, and the observance of the plain, simple rules of health of the individual whose observations every day cover his abode and realm of existence. No man is entitled to a home unless he can make that home happy and healthful. He has *no right* to be the means of bringing misery to others or to leave to posterity the legacy of ill-health

and constitutional weakness. It is the duty of all to be healthy and so observe the laws of hygiene that he may contribute the full measure of his well-being to the public good. His indifference or neglect of health laws and the observance of the sanitation of his home is not only a crime against himself, but the infliction of a wrong on the public and a burden on posterity.

In this country, with its plan of society and intercourse, no family is isolated. Whatever conditions may produce disease in one family are often responsible for sickness in others. Cases are recorded where disease has had its origin traced to very remote causes both as to time and place, and these causes have been found to be the result of neglect in the proper care of the home. The fact that such cases are not always found in the homes of the destitute and ignorant, is evidence that in families of the well-to-do and cultured there is a want of observance of the simplest sanitary precautions, which, we are constrained to believe, results

more from neglect and indifference than from ignorance of the means to be employed.

A mistaken idea prevails that an epidemic must prevail before there is need for any sanitary precautions, when the truth is, such epidemics are always evidence that these precautions have been fatally neglected. Moreover, the greatest mortality does not result from epidemics, but from deaths constantly occurring in the course of such diseases as are admitted to be wholly preventable, and result most frequently from the unsanitary condition of neglected homes, and, in the absence of inspection and preventive means, extend throughout communities. Such diseases as diphtheria, scarlet fever, typhoid, and others of this class, are constantly carrying off their victims, and in the aggregate far surpass the deaths in epidemics. These diseases, if they do not result directly from ill-kept homes, find a lodgement, and their virulence and extent is increased. To such a degree has sanitary knowledge been disseminated, and the facilities for gaining such knowledge are so ample, that it is not a utopian dream to suppose every individual a sanitarian and every home a sanitarium.

It is not so much the ignorance of health laws as it is the neglect of their observance that is responsible for the greater portion of ills that afflict humanity. The lesson to be taught is the proper use of the knowledge imparted. The State boards of health within the past few years have made great and rapid advances. Some of the States are so thoroughly organized that on the first appearance of infectious diseases notification is given, and means for the prevention of their contagion instantly employed.—*Sanitary News*.

WE notice that in making out mortality reports some superintendents do not include the "deaths under five years old" in the classification by diseases, thinking, probably, that they will be added to the total and thus be counted twice. That, however, is not the case, for the death-rate is based only upon the total

number as footed up by the reporter. The line reading "Number of deaths under five years old" might be put this way: "Of the above number of deathswhite andcolored occurred under five years of age."

I HAVE come across many curious essays written by small boys, but the following is about the funniest of them all. It is on "Breathing." "Breath," says the writer, "is made of air. We breathe with our lungs, our lights, our liver, and our kidneys. If it wasn't for our breath we would die when we slept. Our breath keeps the life agoing through the nose when we are asleep. Boys that stay in a room all day should not breathe. They should wait till they get out of doors. Boys in a room make bad, unwholesome air. They make carbonic acid. Carbonic acid is poisoner than mad dogs. A heap of soldiers was in a black hole in India, and a carbonic acid got in that there black hole and killed nearly every one afore morning. Girls kill the breath with corsets that squeezes the diagram. Girls can't run or holler like boys, because their diagram is squeezed too much. If I was a girl I'd rather be a boy, so I can holler and run, and have a great big diagram."—*Living Church*.

Recent Saving of Life in Michigan.

In a carefully-prepared paper, read before the Sanitary Convention at Vicksburg, the proceedings of which are just published, Dr. Baker gave official statistics and evidence, which he summarized as follows:

"The record of the great saving of human life and health in Michigan in recent years is one to which, it seems to me, the State and local boards of health in Michigan can justly 'point with pride.' It is a record of the saving of over one hundred lives per year from small-pox, four hundred lives per year saved from death by scarlet fever, and nearly six hundred lives per year saved from death by diphtheria—an aggregate of eleven hundred lives per year,

or three lives per day saved from these three diseases! This is a record which we ask to have examined, and which we are willing to have compared with that of the man who 'made two blades of grass grow where only one grew before.'"

Small Pox and Leprosy.

The Pennsylvania Board of Health reports a case of leprosy at Philadelphia in the person of a Chinaman. The case was isolated and a thorough inspection and disinfection of the neighborhood instituted.

The Connecticut State Board of Health reports nineteen cases of small pox at Meriden, contracted from previous cases.

Review of Diseases for March, 1890.

Bronchitis—Chowan, Guilford, Henderson, Iredell, Johnston, McDowell, Sampson and Warren.

Chicken Cholera—Rowan.

Chicken Pox—Sampson.

Diphtheria—Ashe and Wake.

Distemper (horses)—Guilford.

Dysentery—Caswell, Greene, Guilford and Wayne.

Erysipelas—Henderson and Wayne.

Hog Cholera—Nash and Rowan.

"*La Grippe*" or *Influenza*—Alamance, Alleghany, Ashe, Bertie, Caldwell, Caswell, Chatham, Cherokee, Edgecombe, Franklin, Gaston, Halifax, Henderson, Iredell, Jackson, Johnston, Lincoln, Macon, Madison, McDowell, Montgomery, Moore, Nash, New Hanover, Orange, Richmond, Robeson, Rowan, Rutherford, Sampson, Union, Vance, Wake, Warren, Watauga, Wayne, Yadkin and Yancey.

Malarial fever—Orange and Pender.

Malarial fever, hemorrhagic—Martin and Northampton.

Malarial fever, pernicious—Orange.

Measles—Duplin, Greene, Guilford, Jackson, Macon, New Hanover, Orange, Robeson, Rowan, Swain and Union.

Mumps—Alamance, Caldwell, Duplin, Halifax, Nash, Orange, Sampson and Yadkin.

Pneumonia—Alleghany, Buncombe, Caldwell, Caswell, Chatham, Chowan, Cumberland, Franklin, Halifax, Henderson, Iredell, Lincoln, Macon, Martin, McDowell, Nash, Orange, Pender, Randolph, Rowan, Sampson, Vance, Watauga, Yadkin and Yancey.

Rheumatism—Henderson, Vance and Wayne.

Scarlatina—Wake.

Typhoid fever—Bladen, Buncombe, Chatham, Chowan, Columbus, Franklin, Jackson, Martin, McDowell, New Hanover, Pender and Rowan.

Whooping-cough—Bladen, Franklin, Montgomery, Sampson and Wayne.

Summary of Mortuary Reports for March, 1890.

	White.	Col'd.	Total.
Aggregate population	48,950	36,550	85,500
Aggregate deaths	47	52	99
Temporary annual death rate per 1,000	11.5	17.1	13.9
Deaths under 5 years.			28
<i>Cause of Death.</i>	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Typhoid fever	1	1	2
Whooping-cough	1	1	2
Pneumonia	7	8	15
Consumption	9	9	18
Brain diseases	1	0	1
Heart diseases	0	1	1
Neurotic diseases	2	2	4
Diarrheal diseases	1	2	3
All other diseases	21	24	45
Accident and violence,	1	1	2
Suicide	0	1	1
Still-born	3	2	5
	47	52	99

Reports From County Superintendents of Health for March, 1890.

Alamance.—Dr. G. W. Long, Graham. Mumps, with a few cases of "La Grippe" reported. Public buildings, except jail, in good sanitary condition.

Alexander.—Dr. McD. Little, Taylorsville. No report.

Alleghany.—Dr. G. W. Doughton, Sparta. "La Grippe" has prevailed in all sections, but seems to be subsiding. Pneumonia has been unusually fatal this season. Sanitary condition of jail is not good, and no efforts to improve it.

Anson.—No Board of Health.

Ashe.—Dr. J. W. Colvard, Jefferson. Three cases diphtheria reported. Influenza has been epidemic, but very few deaths as yet. Little other sickness. Sanitary condition of public buildings is good.

Beaufort.—Dr. W. A. Blount, Washington. No Report.

Bertie.—Dr. H. O. Dunston, Windsor. "La Grippe" has prevailed in all portions. Sanitary condition of county is very good. Public buildings are comfortable and well kept.

Bladen.—Dr. Newton Robinson, Elizabethtown. A case each of whooping-cough and typhoid have occurred. The sanitary condition of county is the very best. That of public buildings is good.

Brunswick.—No Board of Health.

Buncombe.—Dr. H. B. Weaver, Asheville. Sanitary condition of county is very good indeed, some little complications of "La Grippe" still existing. Very little pneumonia for the season of the year. A few cases of typhoid fever in city, resulting from the use of well-water, which I have prohibited. All public buildings are in good condition. Do not need any improvement.

Burke.—Dr. J. L. Laxton, Morganton. No report.

Cabarrus.—Dr. R. S. Young, Concord. Sanitary condition of county and public buildings is good.

Caldwell.—Dr. A. A. Kent, Lenoir. General health good. A few cases of influenza and mumps, and an occasional case of pneumonia. Since last report the grand jury have visited jail and poor-house. I called their attention to some abuses at the latter, which they reported. The keeper and commissioners were reprimanded by the Judge, and I look for better management there.

Camden.—No Board of Health.

Carteret.—Dr. M. F. Arendell, Morehead City. Sanitary condition of county is good, also that of public buildings.

Caswell.—Dr. R. H. Williamson, Yanceyville. The general sanitary condition of the county is good. "La Grippe" has prevailed generally. There has been some pneumonia and dysentery. Public buildings in good sanitary condition.

Catawba.—Dr. J. M. McCorkle, Newton. General sanitary condition of county good. Public buildings in very good sanitary condition.

Chatham.—Dr. L. A. Hanks, Pittsboro. Three cases of typhoid reported. Influenza and pneumonia have prevailed; with these exceptions, health of county is good. Public buildings in good sanitary condition.

Cherokee.—Dr. J. F. Abernathy, Murphy. Health of county not so good as last month. "La Grippe" has caused the death of two aged citizens and much suffering among others. The streams are blocked in many places with bark and lumber, which, it is feared, will cause much sickness during the summer.

Chowan.—Dr. R. W. Winborne, Barnitz. One case of typhoid reported. Bronchitis, pneumonia and coryza have prevailed. Sanitary condition of county is better than for February. Public buildings are in a remarkably good condition.

Clay.—No Board of Health.

Cleveland.—Dr. A. P. Gardner, Shelby. Sanitary condition of county has been good; no disease has prevailed. Public buildings also in good sanitary condition.

Columbus.—Dr. Isaac Jackson, Whiteville. Two cases of typhoid reported. No epidemic has prevailed. Sanitary condition of county is good. Catarrhal fever has about disappeared. Public buildings are in a good sanitary condition.

Craven.—Dr. L. Duffy, Newbern. No report.

Cumberland.—Dr. J. A. Hodges, Fayetteville. There has been a marked diminution in sickness the past month, in town as well as country. A few cases of pneumonia reported. Public buildings are in good condition and well cared for.

Currituck.—No Board of Health.

Dare.—No Board of Health.

Davidson.—Dr. R. L. Payne, Jr., Lexington. Very little sickness in the county, and sanitary condition good. Sanitary condition of public buildings very good, except jail, which cannot be kept in very good order, owing to faulty construction.

Davie.—No Board of Health.

Duplin.—Dr. Jas. W. Blount, Kenansville. Measles and mumps have prevailed in several sections; besides these there is very little sickness and the sanitary condition of county is good. Poor-house in good sanitary condition. Very little sickness among inmates.

Durham.—Dr. N. M. Johnson, Durham. County is in a healthful condition. Some improvements have recently been made to public buildings which are now in a good sanitary condition.

Edgecombe.—Dr. J. M. Baker, Tarboro. "La Grippe" has prevailed generally. Sanitary condition of the county is good.

Forsyth.—Dr. D. N. Dalton, Winston. No report.

Franklin.—Dr. E. A. Foster, Louisburg. Two cases of whooping-cough and one of typhoid fever reported. Influenza has prevailed in a mild form. Pneumonia of a mild type has occurred.

Gaston.—Dr. E. B. Holland, Dallas. Influenza in all sections. Sanitary condition of county good, also that of public buildings.

Gates.—No Board of Health.

Graham.—No Board of Health.

Granville.—Dr. J. M. Hays, Oxford. No epidemic has prevailed. Sanitary condition of county is very good. Condition of all public buildings good.

Greene.—Dr. E. H. Sugg, Snow Hill. Dysentery and measles have prevailed. General sanitary condition of county and public buildings good.

Guilford.—Dr. E. R. Michaux, Greensboro. Health of county has been good. Some measles, bronchitis, and a few cases of dysentery, have occurred. The last has been rather obstinate in character. There has been some distemper among horses. Public buildings continue in good sanitary condition.

Halifax.—Dr. A. B. Pierce, Weldon. "La Grippe" has prevailed in some sections. The sanitary condition of county good. Pneumonia reported (sporadic cases); mumps also, but not general. Public buildings need more room, as inmates are increasing. Promise of reform. Sanitary condition good.

Harnett.—No Board of Health.

Haywood.—Dr. R. L. Allen, Waynesville. No report.

Henderson.—Dr. W. B. Ruse, Hendersonville. Influenza has prevailed. Pneumonia, and rheumatism to a great extent, also reported. Erysipelas and bronchitis. Sanitary condition of jail and poor-house is good. Poor house is new, well ventilated and healthily located. Jail is quite primitive; built of gray granite, small windows and in low, rather marshy land, yet the inmates seldom get sick.

Hertford.—No Board of Health.

Hyde.—No Board of Health.

Iredell.—Dr. M. W. Hill, Statesville. As far as I can learn, there is but little sickness in the county. Have heard of a few cases of pneumonia, bronchitis and "La Grippe." Nothing new as to sanitary condition of public buildings.

Jackson.—Dr. J. M. Candler, Dillsboro. "La Grippe" and measles have prevailed. One case of typhoid reported. Sanitary condition of county very good, also that of public buildings.

Johnston.—Dr. L. L. Sasser, Smithfield. "La Grippe," attended with bronchial troubles, has prevailed. Sanitary condition of county and public buildings is very good.

Jones.—Dr. C. B. Woodley, Trenton. The apartments used by negroes at the poor-house are not kept in a very good sanitary condition, owing to the fact that there is no resident superintendent of the poor-house. No report made on prevailing diseases.

Lenoir.—No Board of Health.

Lincoln.—Dr. W. L. Crouse, Lincolnton. "La Grippe," pneumonia and rheumatism have prevailed in all sections. The sanitary condition of county, upon the whole, is very good. There has never been, in my knowledge, a year equal to the last for freedom from all dangerous diseases in this the Piedmont section of the State. Distemper has been epidemic among horses. Public buildings are in good sanitary condition, but poor-house needs more room.

Macon.—Dr. J. M. Lyle, Franklin. Influenza has been dreadful all over the county. Only four or five deaths reported, and these were among the aged, or where pneumonia resulted. There are a great many cases of measles. I have no idea how many; no deaths reported yet. Public buildings are in good sanitary condition.

Madison.—Dr. J. K. Hardwick, Marshall.

A few cases of "La Grippe" still linger in some parts of the county. General sanitary condition of county and public buildings good.

Martin.—Dr. W. H. Harrell, Williamston. Two cases of typhoid and one of hemorrhagic malaria have been reported. Bronchitis and pulmonary troubles have prevailed. Death rate from pneumonia immensely high. Considerable malarial trouble for this season. The epidemic among dogs has about died out. Sanitary condition of public buildings good. Jail entirely unoccupied for the whole month of March.

McDowell.—Dr. J. H. Gilkey, Marion. One case of typhoid reported. Bronchitis and influenza have prevailed. There have occurred a few cases of pneumonia. Besides this, sanitary condition of county has been good.

Mecklenburg.—No Board of Health.

Mitchell.—Dr. W. P. Upton, Bakersville. No report.

Montgomery.—Dr. W. A. Simmons, Troy. Twelve cases of whooping-cough reported. Influenza has prevailed in all sections of the county. Not much improvement needed at jail or poor-house.

Moore.—Dr. Gilbert McLeod, Carthage. Influenza has prevailed generally. Sanitary condition of county and public buildings good.

Nash.—Dr. G. W. Lewis, Spring Hope. During March we have had influenza, mumps and a few cases of pneumonia; but little pneumonia reported. There has been an epidemic of hog cholera. Public buildings in very good condition.

New Hanover.—Dr. F. W. Potter, Wilmington. During the year ending March 31st, I have abated 59 nuisances, 50 privies, 6 wells, and 3 sinks. Have recommended the use of water-tight boxes for privies, to prevent the saturation of the ground. I have distributed many copies of "A Year's Campaign Against Dirt" as furnished by the State Board. Our worthy health officer, Capt. Jas. McGowan

has sent in his report for the year. He reports that there are about 4 000 privies in the city, besides sinks and water-closets.

Three cases of measles and 3 of typhoid fever reported. As far as I can learn, the sanitary condition of county is good, nothing more than a few lingering cases of "La Grippe." Jail is in good condition, with a convenient bathtub, in which prisoners are made to bathe often. Poor-house burned in the latter part of March. Steps are being taken looking to the erection of a new building.

Northampton.—Dr. H. W. Lewis, Jackson. Very little sickness. One case of hæmorrhagic malarial fever reported. Sanitary condition of county and public buildings good.

Onslow.—No Board of Health.

Orange.—Dr. D. C. Parris, Hillsboro. One case pernicious malarial fever reported. Mumps, influenza and measles have prevailed in northern section. Pneumonia and malarial fever have prevailed generally. Sanitary condition of public buildings good. Seating arrangements in our public schools not good.

Pamlico.—No Board of Health.

Pasquotank.—No Board of Health.

Pender.—Dr. S. S. Satchwell, Burgaw. Seven cases of typhoid reported. The county has not been so healthy as in January and February. The warm winter has developed malarial and bowel troubles. Some pneumonia has occurred.

Perquimans.—No Board of Health.

Person.—No Board of Health.

Pitt.—Dr. F. W. Brown, Greenville. No report.

Polk.—No Board of Health.

Randolph.—Dr. J. W. Long, Randleman. Health of county was never better. We have some pneumonia, both croupous and catarrhal; none fatal. Jail in as good condition as old-time cells will permit. Need more room at the poor-house. I went before the last grand jury and urged the necessity of more room.

Richmond.—Dr. P. W. Stancill, Rockingham. Have heard of but little sickness except "La Grippe." Public buildings in good sanitary condition.

Robeson.—Dr. R. F. Lewis, Lumberton. Influenza and some measles have prevailed. Sanitary condition of county good.

Rockingham.—No Board of Health.

Rowan.—Dr. J. J. Summerell, Salisbury. Some measles, some typhoid and many cases of influenza have occurred. Influenza was followed by pneumonia, in some cases with death. Hog cholera and chicken cholera have been epidemic.

Rutherford.—Dr. E. B. Harris, Rutherfordton. Influenza has got us all; many cases throughout the county.

Sampson.—Dr. J. A. Stevens, Clinton. A few cases of pneumonia and bronchitis, mumps, whooping cough, chicken pox and influenza have been very prevalent. Public buildings in good sanitary condition.

Stanly.—No Board of Health.

Stokes.—No Board of Health.

Surry.—No Board of Health.

Swain.—Dr. R. L. Davis, Bryson City. Sanitary condition of county is good. No sickness, except measles in the lower part of county. Sanitary condition of public building, only fairly good.

Transylvania.—Dr. D. A. Farmer, Brevard. No report.

Tyrrell.—Dr. Ab. Alexander, Columbia. No report.

Union.—Dr. W. C. Ramsay, Monroe. "La Grippe" has prevailed. About thirty cases of measles reported. Sanitary condition of county is fair. Poor-house in fair condition. Jail inferior.

Vance.—Dr. A. Cheatham, Henderson. "La Grippe" is on the wane; some pneumonia and rheumatism. Sanitary condition of public buildings is good.

Wake—Dr. James McKee, Raleigh. Three cases of scarlatina and two of diphtheria have occurred. Some few cases of influenza still prevail. Sanitary condition of county is good; also that of public buildings. Convicts at work on public roads are at present poorly provided with quarters, but the county commissioners are applying themselves diligently to secure better ones.

Warren—Dr. P. J. Macon, Warrenton. "La Grippe" and bronchitis have prevailed. Sanitary condition of county and public buildings good. Not a death in twelve months in jail or poor-house.

Washington—No Board of Health.

Watagua—Dr. W. B. Councill, Boone. "La Grippe," with a few cases of pneumonia, have prevailed generally. Sanitary condition of county is good in every respect. Public buildings in good sanitary condition.

Wayne—Dr. W. H. Cobb, Jr., Goldsboro.

Several cases of whooping-cough reported. There have been reported also cases of influenza, dysentery, catarrh, eczema, hepatitis, furuncles, rheumatism, erysipelas. General sanitary condition of county good. Sanitary condition of public buildings good, but there has been considerable sickness among the inmates of the alms-house.

Wilkes—No Board of Health.

Wilson—Dr. R. W. King, Wilson. No report.

Yadkin—Dr. Q. R. Harding, Yadkinville. Influenza, pneumonia and mumps have prevailed. Sanitary condition of county good. No efforts to improve sanitary condition of public buildings.

Yancey—Dr. J. L. Ray, Burnsville. Pneumonia and Influenza have prevailed in some sections. Sanitary condition of county is moderately good at present. Jail is not kept very clean.

[In the following table, the temporary annual death-rate for each month is calculated by the population and deaths given in the table. The death-rate, in all cases, *includes still births and*

TABLE OF MORTUARY REPORTS FROM TOWNS.

TOWNS AND REPORTERS.	DEATHS BY MONTHS.													Grand Total.
	1889. March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Jan., 1890.	February.	Total by Races.	
Asheville..... } Dr. H. B Weaver..... }	W. C.	9 (a) 3	5 5 2 10	9 5	5 5 5 4	7 2	7 7 4 2	3 4	3 3 7 3	2 5 3 3	62 (11 mos.) 110			
Charlotte..... } Dr. J. Scarr..... }	W. C.	15 9 6 10	(a) 19	7 9 14 12	10 15 9 11	13 17	6 3 12 10	3 7 10 10	1 1 130	95 (11 mos.) 225				
Durham..... } Dr. N. M. Johnson..... }	W. C.	1 1 3 10	7 5 4 5	3 6 4 5	3 3 4 4	5 0 3 4	3 3 4 3	1 (a) 5	35 (11 mos.) 50	85				
Fayetteville..... } Dr. J. A. Hodges..... }	W. C.	7 0 3 3	2 6 2 3	4 4 3 3	5 5 4 3	7 6 12 4	3 3 4 2	6 6 5 5	4 4 49	55 (12 mos.) 104				
Goldsboro..... } J. E. Peterson, Mayor..... }	W. C.	1 (a) 0	1 4 2 4	6 7 5 5	4 4 2 0	1 2 0 0	2 2 0 2	2 5 2 2	35 (11 mos.) 22	57				
Oxford..... } Dr. J. M. Hays..... }	W. C.	(a) (a) 0	5 4 0 2	2 2 7 1	3 3 4 4	0 0 3 5	1 2 11 39	22 (10 mos.) 61						
Raleigh..... } Dr. James McKee..... }	W. C.	6 6 15 16	10 (a) 11	11 11 14 13	12 2 10 3	9 10 14 14	16 10 21 146	103 (11 mos.) 249						
Salisbury..... } Dr. J. J. Summerell..... }	W. C.	4 5 3 2	1 7 1 10	2 3 7 9	2 2 3 0	7 (a) 3	(a) 3 2 3	0 3 2 2	37 (11 mos.) 81					
Tarboro..... } Dr. J. M. Baker..... }	W. C.	2 1 2 1	1 (a) 3	4 1 2 2	1 1 3 0	0 (a) 0	(a) (a) 0	(a) 1 0 13	11 (3 mos.) 24					
Washington..... } Dr. S. T. Nicholson..... }	W. C.	0 0 2 0	3 7 1 6	1 3 7 6	(a) 1 4	1 (a) 0	(a) (a) 0	(a) (a) 15 (7 mos.) 41						
Wilmington..... } Dr. F. W. Potter..... }	W. C.	6 13 25 16	7 18 22 44	10 11 34 41	12 18 16 27	18 9 27 39	13 10 26 24	11 135 356 (12 mos.) 494						
Greensboro..... } Dr. R. W. Tate..... }	W. C.	1 0 3 1	2 (a) 3	1 1 3 2	1 1 3 1	0 2 9 0	3 2 0 0	2 5 0 0	15 (11 mos.) 34					
Newbern..... } S. Fulcher, City Clerk..... }	W. C.	2 3 9 15	2 3 16 7	3 2 12 23	3 5 20 24	5 6 15 12	5 6 9 15	41 (12 mos.) 180	221					
Henderson..... } Dr. A. Cheatham..... }	W. C.	3 1 1 5	3 2 5 5	2 2 2 3	0 1 1 1	0 0 0 2	(a) (a) 1	14 (10 mos.) 25	39					

(a) No report received.

population as given in the report for that month. The death-rate for the year is based on the deaths by violence and accident]

FOR THE YEAR ENDING MARCH 31ST, 1890.

DEATH-RATE PER 1,000.														POPULATION.	
1889. March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	1890. January.	February.	For Year by Races	Total For Year.	By Races.	Total.
15.4 12.0	(a)	8.4 7.2	8.4 39.6	14.4 19.2	8.4 19.2	9.6 16.0	12.0 8.0	12.0 18.0	5.1 23.0	3.4 12.0	8.6 12.0	9.6 17.3	12.0	7,000 3,000	10,000
25.7 13.0	14.4 21.6	(a)	12.0 40.8	18.0 33.0	15.6 24.0	25.9 18.0	22.3 22.0	10.3 34.7	5.1 24.0	12.0 20.0	1.7 20.0	14.6 23.7	18.8	7,000 6,000	13,000
2.4 12.0	2.4 36.0	30.4 13.2	13.2 16.8	7.2 13.2	12.0 19.2	8.0 13.7	15.0 12.0	0.0 16.0	9.0 12.0	3.0 20.0	(a)	8.4 15.7	11.6	4,500 3,500	8,000
18.0 14.4	0.0 15.6	8.6 10.8	15.6 14.4	9.6 14.4	13.2 19.2	21.4 16.4	30.0 65.4	25.7 21.8	12.8 10.9	25.7 27.3	17.1 24.3	12.2 19.6	14.9	4,500 2,500	7,000
3.6 0.0	(a)	4.8 10.9	12.8 21.6	25.7 20.4	30.0 26.4	17.1 10.9	4.3 0.0	8.5 0.0	8.5 0.0	8.6 10.9	24.0 9.6	13.6 10.9	12.4	2,800 2,200	5,000
(a)	(a)	39.2 0.0	30.0 13.2	14.4 13.2	13.2 51.6	22.5 7.0	0.0 28.2	0.0 28.2	22.5 21.2	7.5 35.3	15.0 77.8	16.3 27.6	22.1	1,600 1,700	3,300
8.4 25.2	8.4 26.4	14.4 18.0	(a)	16.5 25.2	16.5 24.0	18.0 22.3	3.0 17.1	13.5 5.1	15.0 24.0	24.0 24.0	15.0 36.0	14.0 22.7	18.1	8,000 7,000	15,000
16.8 25.2	20.4 13.2	3.6 8.4	30.0 62.4	8.4 49.2	13.2 60.0	8.6 14.1	30.0 21.2	(a)	12.8 14.1	0.0 25.7	12.8 17.1	14.4 34.3	21.0	2,800 1,400	4,200
18.0 19.2	8.4 9.6	8.4 30.0	(a)	36.8 20.0	8.4 20.0	9.2 30.0	0.0 0.0	(a)	(a)	(a)	7.8 0.0	12.7 16.2	14.4	1,300 1,200	2,500
0.0 14.4	0.0 0.0	14.4 7.2	34.8 45.0	4.8 51.6	14.4 45.0	(a)	5.0 30.0	(a)	(a)	(a)	(a)	10.7 28.0	17.6	2,400 1,600	4,000
7.2 24.0	16.8 13.2	8.4 15.6	24.0 36.0	13.2 32.4	8.4 26.4	16.0 35.1	24.0 13.7	12.0 23.1	17.3 33.4	13.3 22.3	14.7 20.6	15.3 24.9	21.5	9,000 14,000	23,000
3.0 16.8	0.0 6.0	6.0 18.0	(a)	2.4 18.0	2.4 12.0	3.0 18.0	0.0 6.0	6.0 0.0	9.0 0.0	6.0 0.0	15.0 0.0	4.9 8.7	6.2	4,000 2,000	6,000
6.0 24.0	8.4 48.0	6.0 22.0	9.6 18.0	6.0 31.2	9.6 48.0	20.0 60.0	9.2 82.3	20.6 27.7	3.4 22.1	20.6 16.6	10.3 33.2	11.7 27.7	22.1	3,500 6,500	10,000
19.2 16.0	4.8 34.8	19.2 34.8	13.2 34.8	13.2 13.2	13.2 19.2	0.0 7.0	6.7 6.0	0.0 0.0	0.0 14.0	(a)	(a)	9.4 17.5	13.4	1,785 1,715	3,500

Condition of Jails and Poor-houses by Counties for March, 1890.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....	3	700			42 ^a	500		
Alexander.....								
Alleghany.....	6		0	4	2		0	0
Anson.....								
Ashe.....	2	730			8	645	1	1
Beaufort.....								
Bertie.....	5	<i>b</i>			14	<i>b</i>		
Bladen.....	2				6			
Brunswick.....								
Buncombe.....	22	900	8	12	30	800	6	8
Burke.....								
Cabarrus.....	10	960	3	3	20	1,140	8	10
Caldwell.....	1	2,860	1	1	6	1,260	0	2
Camden.....								
Carteret.....	1	1,760	0	1	6			
Caswell.....	5	450			26	1,000	9	3
Catawba.....	2	2,000	1	1	28	800	9	8
Chatham.....	1	7,800	0	1	23	1,459	10	10
Cherokee.....	3	4,105			2	2,025		
Chowan.....	5	707	0	1	10	2,621	0	1
Clay.....								
Cleveland.....	15	684		5	25	997		6
Columbus.....	3	5,544	0	0	9	486	0	0
Craven.....								
Cumberland.....	8	890	6	5	12	1,000	11	8
Currituck.....								
Dare.....								
Davidson.....	4	2,755	0	0	22	721	0	4
Davie.....								
Duplin.....					26			
Durham.....	8	1,000		3	38 ^c	1,000		6
Edgecombe.....	12	1,382	0	3	22	3,145	0	2
Forsyth.....								

a. Includes 6 in work-house. *b.* Square dimensions given. *c.* Includes 22 in work-house.

Condition of Jails and Poor-houses by Counties for March, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Franklin.....	4				19			
Gaston.....	3	2,555	0	2	14	2,405	0	2
Gates.....								
Graham.....								
Granville.....	9	2,800			20	900		
Greene.....	3	500		2	10	1,000		1
Guilford.....	28	245	4	10	32	1,250		12
Halifax.....	7				57			
Harnett.....								
Haywood.....								
Henderson.....	3	100		1	7	160		3
Hertford.....								
Hyde.....								
Iredell.....	8	1,402			22	504		
Jackson.....	7	150	3	4	4	1,000	2	2
Johnston.....	1	4,000	0	0	18	900	4	3
Jones.....					6	840		
Lenoir.....								
Lincoln.....	5	1,542			30	575		
McDowell.....	2	550	4	1	8	600	1	1
Macon.....	7	310	1	2				
Madison.....	7	366	0	0	6	2,100	0	0
Martin.....	0				13	500	2	3
Mecklenburg.....								
Mitchell.....								
Montgomery.....	4	1,000		2	12	750		1
Moore.....	1	9,600	0	0	41	762	1	2
Nash.....	6		3	2	35		10	4
New Hanover.....	10	500	6	6	22 <i>b</i>	<i>a</i>	11	7
Northampton.....	0				45	800		
Onslow.....								
Orange.....	8	512	0	3	31	2,048	12	12
Pamlico.....								

a. Poor-house burned. *b.* Includes 5 in work-house.

Condition of Jails and Poor-houses by Counties for March, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giv- ing evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	0				2		2	1
Perquimans.....								
Person.....								
Pitt.....								
Polk.....								
Randolph.....	8	840			29	525	11	10
Richmond.....	7	1,378	1	4	8	1,200	1	3
Robeson.....	14	500			11a	500		
Rockingham.....								
Rowan.....	16	480	8	14	18	2,500	14	2
Rutherford.....	5	1,368	2	5	26	996	6	4
Sampson.....	3				19			
Stanly.....								
Stokes.....								
Surry.....								
Swain.....	2							
Transylvania.....								
Tyrrell.....								
Union.....	1	2,090	0	2	24	2,500	0	2
Vance.....	7	1,451	2		16		4	5
Wake.....	14	1,932			131			
Warren.....					18	1,750	0	3
Washington.....								
Watauga.....	2				7			
Wayne.....	4	2,205	1	3	17	828	4	5
Wilkes.....								
Wilson.....								
Yadkin.....	5			2	21			7
Yancey.....	2	1,152	1	2				

a. Includes 6 in work-house.

Meteorological Report for March, 1890.

STATIONS.	TEMPERATURE.										NO. DAYS.				Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.	
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.			On which rain fell, including hail, snow and sleet.
Asheville.....	42.6	71.5	.....	11.9	.....	60.0	20.9	.....	.....	.....	.....	16	7	8	11	2.50	N. & N. W.
Chat'oga, Tenn.	48.8	76.0	21	15.0	2	61.0	.....	35.0	.....	7.0	.....	7	15	9	13	4.78	N. W.
Charleston, S. C.	56.0	82.0	26	25.0	16	57.0	.....	25.0	.....	6.0	.....	10	6	15	11	1.72	S. W.
Charlotte.....	49.6	76.0	28	19.0	16	57.0	20.2	36.0	17	7.0	21	14	9	8	11	3.08	S.
Columbia, S. C.	54.0	83.0	21	21.0	16	62.0	.....	35.0	.....	10.0	.....	5	12	11	11	2.80	W.
Hatteras	53.9	72.0	28	26.0	16	46.0	.....	26.0	6	6.0	24	10	15	6	8	3.06	S.
Kitty Hawk.....	52.2	81.0	29	20.7	16	60.3	.....	31.0	19	7.0	8	3	16	12	13	1.77	S. W.
Knoxv'le, Tenn.	45.0	76.0	27	15.0	2	61.0	.....	37.0	17	7.0	1	10	8	13	15	5.72	S. W.
Lynchburg, Va. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Norfolk, Va.....	48.1	81.0	28	22.0	3	59.0	17.0	27.0	28	7.0	31	6	15	10	11	4.06	S. W.
Raleigh	49.6	79.0	22	20.0	16	59.0	20.4	30.0	17	5.0	2	9	8	14	17	3.74	S. W.
Southport.....	53.6	70.9	13	21.2	3	49.7	.....	28.1	2	5.7	28	10	8	13	10	1.53	S. W.
Wake Forest.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wilmington	53.0	77.0	26	22.0	16	55.0	.....	28.0	.....	5.0	.....	10	11	10	11	1.50	S. W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Asheville, N. C	30.210	.....	.....	.....	.....	.....
Chattanooga, Tenn	30.134	30.479	9	29.581	27	.918
Charleston, S. C .....	.....	.....	.....	.....	.....	.....
Charlotte, N. C	30.108	30.506	9	29.617	28	.889
Columbia, S. C .....	.....	.....	.....	.....	.....	.....
Hatteras, N. C .....	.....	.....	.....	.....	.....	.....
Kitty Hawk, N. C .....	.....	.....	.....	.....	.....	.....
Knoxville, Tenn	30.139	30.500	9	29.614	27	.886
Lynchburg, Va .....	.....	.....	.....	.....	.....	.....
Norfolk, Va	30.044	30.529	9	29.494	19	1.035
Raleigh, N. C	30.103	30.564	10	29.638	23	.926
Southport, N. C .....	.....	.....	.....	.....	.....	.....
Wake Forest, N. C .....	.....	.....	.....	.....	.....	.....
Wilmington, N. C	30.129	30.520	10	29.760	28	.760

Mortuary Report for March, 1890.

TOWNS AND REPORTERS.		Races.	Population.		Temporary Annual death rate per 1,000.		DISEASES.													Total Deaths under 5 yrs				
			By Races.	Total.	By Races.	Total.	Typhoid Fever.	Scarlet Fever.	Malarial Fever.	Diphtheria.	Whooping-cough.	Measles.	Pneumonia.	Consumption.	Brain Diseases.	Heart Diseases.	Neurotic Diseases.	Diathetical Diseases.	All other Diseases.	Accident & Violence.	Suicide.	Still-Born.	By Races.	By Towns.
Asheville.....	{	White	9,000	12,000	6.7	10.0	1	...	...	...	...	1	1	...	...	...	...	...	1	...	...	5	...	...
Dr. H. B. Weaver.....	}	Color'd	3,000		20.0		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	10	2
Charlotte.....	{	White	7,000	13,000	17.1	23.1	...	...	...	1	...	2	3	...	...	...	...	...	3	5	...	10	1	...
Dr. J. Scarr.....	}	Color'd	6,000		30.0		...	...	...	...	...	...	1	1	1	...	1	...	...	...	1	1	15	25	5
Durham.....	{	White	4,000	7,000	15.0	15.4	...	...	...	...	...	1	...	...	...	...	1	1	2	...	...	5	9	...
Dr. N. M. Johnson.....	}	Color'd	3,000		16.0		1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	4	4	...
Fayetteville.....	{	White	2,800	5,000	12.9	14.4	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	5	6	...
Dr. J. A. Hodges.....	}	Color'd	2,200		16.1		...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	3	6	...
Goldsboro.....	{	White	2,500	5,000	14.4	7.2	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	5	1	...
Dr. W. H. Cobb, Jr.....	}	Color'd	2,500		0.0		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	3	...
Henderson.....	{	White	.....	.....	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Dr. A. Cheatham.....	}	Color'd	.....		.....		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Newbern.....	{	White	3,500	10,000	0.0	7.2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	...	...
S. Fulcher, (City Clk.)	}	Color'd	6,500		11.1		...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	6	6	2
Oxford.....	{	White	1,600	3,300	0.0	10.9	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	0	3	...
Dr. J. M. Hays.....	}	Color'd	1,700		21.2		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	2
Raleigh.....	{	White	8,000	15,000	18.0	18.4	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	12	...	...
Dr. Jas. McKee.....	}	Color'd	7,000		18.8		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	28	8
Salisbury.....	{	White	2,800	4,500	21.4	16.0	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	5	...	...
Dr. J. J. Summerell.....	}	Color'd	1,700		7.9		...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	6	1
Tarboro.....	{	White	1,300	2,500	0.0	4.8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	...	...
Dr. J. M. Blake.....	}	Color'd	1,200		10.0		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
Weldon.....	{	White	800	1,400	0.0	0.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	0	...
Dr. A. B. Pierce.....	}	Color'd	600		0.0		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	0	0
Wilmington.....	{	White	.....	.....	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Dr. F. W. Potter.....	}	Color'd	.....		.....		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Greensboro.....	{	White	4,000	6,000	6.0	1.0	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	...
Dr. R. W. Tate.....	}	Color'd	2,000		0.0		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	2	0
Warrenton.....	{	White	1,050	2,000	22.8	12.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
Dr. P. J. Macon.....	}	Color'd	950		0.0		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	2	...
Wilson.....	{	White	.....	.....	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dr. N. Anderson.....	}	Color'd	.....		.....		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hillsboro.....	{	White	600	1,000	0.0	36.0	...	...	...	...	...	...	1	1	...	...	...	...	...	...	0	...	...
Dr. D. C. Parris.....	}	Color'd	400		90.0		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	0
Monroe.....	{	White	1,900	2,200	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dr. W. C. Ramsey.....	}	Color'd	300	
Salem.....	{	White	3,000	3,500
S. W. Clinard, City Clk.	}	Color'd	500	

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MAY, 1890.

NO. 2

Damage by Disinfection With Sulphur.

Dr. R. H. Carter, of the United States Marine Hospital Service, writes to the *Journal of the American Medical Association*, April 5th, 1890, that it is well to know that sulphur burned in the presence of moisture may have the following undesirable effects: It injures the colors of many woollen goods, being especially hard on greens and bright reds—a red flannel shirt, for instance, always comes out yellow; sometimes the color is not affected. The dark blues are generally absolutely uninjured, but not rarely turned a reddish brown. The same color, of course, may be from very different dyes, and thus give different results. The quality of the dye, as judged by the price of the fabric, is no criterion of how it will behave under sulphur. Clothes that have been worn are frequently discolored, when new ones, of the same nature, from the slop chest, are but little or not at all affected—doubtless protected by the oil used in weaving, which has

not worn off. Dr. Carter has seen but few colored goods, other than woollen, submitted to sulphurous acid gas; in some instances they were bleached.

Articles containing starch, if not washed soon, are corroded. This is especially true of handkerchiefs, etc., and the cloth covers of books. Blankets and hair pillows—which are utterly unsuited to the process—will retain for about a week, a smell so disagreeable, in no sense like that of burning sulphur, that they are unpleasant to use. This persists in spite of airing and exposure to sun, but is immediately removed by washing, or heating in an oven.

Flour, in ordinary barrels, will not “rise” with yeast for some days after exposure, and this effect penetrates for a considerable distance in the barrel. Tea is ruined permanently, as is ground coffee. The same change is made of its effect on smoking tobacco.

All metal work, all save gold, is tarnished, with consequent injury to clocks, watches, etc. Oil prevents this almost entirely. Apples and other fruit become scalded and worthless.

The gas in Dr. Carter's observations was obtained by burning as much sulphur as possible in the presence of an abundant moisture, in a compartment more or less close, kept closed for from twenty-four to forty eight, and occasionally seventy-two hours. In general, it was not possible to enter the compartment for some time—thirty minutes to an hour, after opening up. Where the apartment is more open, less injury would be done and also efficient disinfection.—*Medical and Surgical Reporter*.

Drugs in Food.

The *Retail Grocers' Advocate* pointedly says: "A great deal of misdirected effort, of wasted energy, is put out by so-called scientific men in the endeavor to find some method of preserving meats and milk by other than refrigeration. We have been repeatedly told of plans for indefinitely preserving milk, by the use of boracic acid, and the same drug is used sometimes to preserve meat. A salt for preserving butter is widely advertised, which contains a portion of salicylic acid. These and kindred plans are much talked of by uninformed people, who do not understand the ill effects of administering drugs with our daily food, no matter how minute the quantity may be. All such methods should be vigorously prohibited. It is not a pleasant reflection to think, as we give the baby a drink of milk, that we have, at the same time, administered a dose of boracic acid; or to think, as we spread our bread, that we are about to take a dose of poison in the shape of salicylic acid. The American people eat drugs enough knowingly. They pay out money enough every year for patent medicines to cancel the national debt, to the great demoralization of their stomachs and the shortening of their lives. Then pray, Messrs. Experimenters, keep it out of our food; do not dose us unnecessarily."—*Monthly Bulletin Rhode Island Board of Health*.

Some Statistics of "The Grip."

According to the statistics compiled by the *Medical and Surgical Reporter*, the grip, from its appearance on December 21st, to its virtual disappearance as an epidemic on February 8th, caused the highest per cent. of increase in the death-rate in Boston, as compared with that of any other city in the United States. This was 2.41 per cent. of a population of 420,000. New York leads in the number of deaths, 2,503, the per cent. of increase, however, being only 1.97. Cleveland was next with a per cent. of 1.51, although she had only 563 deaths. Chicago showed an increased death-rate of 1,500, her per cent. being 1.39. Philadelphia came next, with an increase of 1,344, and a per cent. of 1.29. Other per cents of increase were: Washington, .79; Cincinnati, .69; St. Louis, .43; Baltimore, .30.

The total population of the above cities is 5,640,000. The total increase in the number of deaths among this population, because of the Russian influenza, was 7,271. There are no figures from the far-Southern and trans-Mississippi cities, but it seems certain that the epidemic was not so fatal among their people as among the residents of North-eastern towns, especially those on the Atlantic seaboard. Places with a high elevation, or a long, level exposure, seemed to afford special opportunities for the disease on its Westward passage.—*The Sanitary News*.

Review of Diseases Reported by Counties for April, 1890.

Bronchitis—Alleghany, Montgomery, Hampson.

Chicken Cholera—Alleghany, Franklin, Hancock.

Diarrhœa—Duplin, Johnston, Martin, New Hanover, Randolph, Union, Wayne.

Diphtheria—Buncombe, Henderson, New Hanover.

Distemper—Iredell.

Dysentery—Cabarrus, Caswell, Catawba, Davidson, Duplin, Gaston, Greene, Guilford, Henderson, Johnston, Jones, Lincoln, McDowell, Montgomery, Moore, Northampton, Randolph, Union, Wayne.

Epidemic (horses)—Haywood.

Flux—Rutherford.

Hog Cholera—Columbus, Cumberland, Pender.

"La Grippe"—Alamance, Alleghany, Bertie, Caldwell, Henderson, Jones, Moore, Nash, Randolph, Rutherford, Sampson, Watauga, Wayne.

Malarial fever—Brunswick, Caswell, Chowan, Franklin, Greene, Johnston, Martin, Sampson, Yadkin.

Malarial fever, hemorrhagic—Cabarrus, Caswell, Yancey.

Meningitis, cerebro-spinal—Rowan.

Meningitis, tubercular—Nash, Sampson.

Measles—Cabarrus, Catawba, Chatham, Davidson, Gaston, Greene, Haywood, Jones, Macon, Montgomery, Orange, Robeson, Rowan, Stanly, Wake.

Mumps—Alamance, Brunswick, Caldwell, Halifax, Martin, Orange.

Pneumonia—Alamance, Alleghany, Brunswick, Caldwell, Chatham, Franklin, Halifax, Haywood, McDowell, Montgomery, Nash, Orange, Randolph, Sampson, Stanly, Warren, Yadkin.

Rheumatism—Chowan, Wayne.

Rubeola—Chatham, Guilford, Wayne.

Scarlatina—Forsyth, Northampton, Wake.

Typhoid fever—Buncombe, Cabarrus, Caswell, Chatham, Chowan, Cleveland, Madison, Montgomery, New Hanover, Orange, Randolph, Rowan, Warren.

Varicella—Guilford, Halifax.

Whooping-cough—Brunswick, Buncombe, Cabarrus, Forsyth, Henderson, Martin, Mitchell, Montgomery, Nash, Robeson, Sampson, Wayne, Yancey.

Summary of Mortuary Statistics from Towns for April, 1890.

	White.	Col'd.	Total.
Aggregate population.....	51,350	47,350	98,700
Aggregate deaths.....	58	67	125
Temporary annual death rate per 1,000.....	13.5	16.9	15.2
Deaths under 5 years..	--	--	30
<i>Causes of Death.</i>	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Typhoid fever.....	2	1	3
Diphtheria.....	1	0	1
Pneumonia.....	5	9	14
Consumption.....	5	13	18
Brain diseases.....	3	1	4
Cerebro-spinal Meningitis.....	3	0	3
Heart diseases.....	4	2	6
Diarrhoeal diseases....	9	6	15
All other diseases.....	16	25	41
Accident.....	4	1	5
Suicide.....	1	1	2
Still-born.....	5	8	13
Total.....	58	67	125

Summary of Reports from County Superintendents of Health and Correspondents for April, 1890.

Alamance.—Dr. G. W. Long, Graham. General sanitary condition of public buildings good, except jail. Some pneumonia, measles and mumps prevailing. "La Grippe" about gone.

Alexander.—

Alleghany.—Dr. Geo. Doughton, Sparta. A few cases of "La grippe," pneumonia and bronchitis. "La grippe" about subsided. Chicken cholera epidemic. Sanitary condition of public buildings is good.

Anson.—

Beaufort.—

Bertie.—Dr. H. O. Dunston, Windsor. "La grippe" has prevailed in all sections. Sanitary condition of public buildings is good.

Bladen.—Dr. Newton Robinson, Elizabethtown. The sanitary condition of the county is good. No diseases of consequence have occurred. Jail is in tolerably good sanitary condition. No efforts to improve that of the poor-house.

Brunswick.—Dr. D. B. McNeill, supply. Whooping-cough and mumps have prevailed. There has been a good deal of sickness. Catarrhal and malarial fevers, with a typhoid tendency. A few cases of pneumonia. Sanitary condition of public buildings not good, and no efforts are being made to improve it.

Buncombe.—Dr. H. B. Weaver, Asheville. Whooping-cough, diphtheria and typhoid fever have occurred. Sanitary condition of county is good in every respect. A few cases of typhoid have occurred in the city from the use of water from open wells. Only one case of diphtheria which was isolated and disinfection practiced. Public buildings all in good sanitary condition. No sickness except the chronic cases incident to the aged.

Burke.—

Cabarrus.—Dr. Robert S. Young, Concord. Measles, whooping-cough, typhoid fever and one case of hæmorrhagic malarial fever have occurred. Dysentery has been epidemic. Sanitary condition of the county and public buildings is good.

Caldwell.—Dr. A. A. Kent, Lenoir. The general health of the county remarkably good. A few cases of influenza, mumps and pneumonia have occurred. Condition of jail improved by the addition of another room; whites and negroes being now separated. Poor-house not yet improved, but county commissioners ordered the building of a separate cottage for the exclusive accommodation of negroes.

Camden.—

Carteret.—Dr. M. F. Arendell, Morehead City. The health of the county is good. No contagious diseases to report. Public buildings are old, but comfortable.

Castell.—Dr. R. H. Williamson, Yanceyville. Remittent fever and dysentery have prevailed in nearly all sections. General sanitary condition of county has been good. One case each of typhoid and hæmorrhagic malarial fever reported. Sanitary condition of public buildings is good.

Catawba.—Dr. J. M. McCorkle, Newton. Dysentery, and, to a slight extent, measles, have prevailed. Sanitary condition of county and public buildings is very good.

Catham.—Dr. L. A. Hanks, Pittsboro. Pneumonia and rubeola have prevailed. Measles and typhoid fever reported. General sanitary condition of county is good. That of public buildings exceptionally good. Prevention of disease is our aim, and experience has proven to myself that "cleanliness is a great factor in the prevention of disease."

Cherokee.—Dr. J. F. Abernathy, Murphy. No diseases of any great moment have occurred, except measles, of which about twenty cases have been reported. There is no effort in any way toward the sanitary improvement of public buildings.

Chowan.—Dr. R. W. Winborne, Barnitz. Rheumatism and malarial fever have prevailed among the fishermen. Sanitary condition of county has been good. One case of typhoid fever reported. Public buildings are in good sanitary condition. Some sickness at poor-house.

Clay.—

Cleveland.—Dr. A. P. Gardner, Shelby. Typhoid fever in Northern and Western portions. Sanitary condition of county and public buildings good.

Columbus.—Dr. Isaac Jackson, Whiteville. Sanitary condition of county is good. Hog cholera prevails in some sections. Sanitary condition of public buildings is good.

Craven.—Dr. Leinster Duffy, Newbern. Health of county is good. Public buildings are kept in pretty fair condition.

Cumberland.—Dr. J. A. Hodges, Fayetteville. There has been very little sickness during April. Hog cholera has been epidemic. Public buildings in good sanitary condition. Interior of jail has been thoroughly white-washed.

Curruck.—

Dare.—

Davidson.—Dr. R. L. Payne, Jr., Lexington. A few scattering cases of measles have occurred, and quite a number of dysentery. I attribute the early appearance and great prevalence of dysentery to the unusual season and to the winter's not being cold enough to destroy disease germs. Sanitary condition of public buildings is unchanged.

Davie.—

Duplin.—Dr. J. W. Blount, Kenansville. General sanitary condition of county is good, but for the last week or ten days diarrhoea has become very prevalent, with a few cases of dysentery. Sanitary condition of poor-house is very good. Very little sickness among the inmates.

Durham.—Dr. N. M. Johnson, Durham. Health of county is good. Sanitary condition of public buildings good.

Edgecombe.—D. J. M. Baker, Tarboro. No diseases reported. Sanitary condition of county and public buildings good.

Forsyth.—Dr. D. N. Dalton, Winston. A few cases of whooping-cough and two of scarlatina reported. Sanitary condition of county and public buildings good.

Franklin.—Dr. E. S. Foster, Louisburg. Pneumonia and malarial fever prevailed. Chicken cholera epidemic. Sanitary condition of county very good, as far as I can learn. Sanitary condition of public buildings very good. Will take such steps as may be necessary for further improvement.

Gaston.—Dr. E. B. Holland, Dallas. Dysentery and measles have prevailed. Sanitary

condition of county and public buildings is good.

Gates.—

Graham.—

Granville.—Dr. J. M. Hays, Oxford. Sanitary condition of county and public buildings is good. No prevailing diseases reported.

Greene.—Dr. E. H. Sagg, Snow Hill. Dysentery and malarial fever, and a few cases of measles have prevailed. County in good sanitary condition. Also the public buildings.

Guilford.—Dr. E. R. Michaux, Greensboro. There has been considerable sickness in town and county during latter part of the month. Have had quite a number of cases of dysentery, tubercula and varicella, the dysentery in many instances having been quite malignant. No deaths reported, however. Sanitary condition of public buildings quite good, except jail, which is somewhat overcrowded temporarily, by prisoners from a neighboring county. It needs cleaning and disinfecting.

Halifax.—Dr. A. B. Pierce, Weldon. Some cases of malarial pneumonia reported, also mumps and eruptive fever, more like varicella than anything else. Unable to classify it. General sanitary condition of county good. General sanitary condition of public buildings good. Promise of improvement in buildings. Some provision promised for the incurable insane who are indigent.

Harnett.—

Haywood.—Dr. R. L. Allen, Waynesville. Measles prevailed as an epidemic all over the county in a severe form. A few cases of pneumonia. Some cases of epizootic among horses.

Henderson.—Dr. W. B. Reese, Hendersonville. Dysentery prevailed in some sections. Whooping-cough and diphtheria reported. Sanitary condition of county is reasonably good. Not so much sickness as previous month. Much influenza is yet prevailing, but modified

in severity. Sanitary condition very good at poor-house and will soon be better at jail. A modern and commodious jail is now under construction.

Hertford.—

Hyde.—

Iredell.—Dr. M. W. Hill, Statesville. Sanitary condition of county good, as far as I am informed. No contagious diseases have occurred. A few cases of distemper among horses. Court-house needs ventilation. Jail needs ventilation, water supply and escape, and some modern means of disposing of sewage.

Jackson.—Dr. J. M. Candler, Dillsboro. Sanitary condition of county very good. Also that of public buildings.

Johnston.—Dr. L. L. Sasser, Smithfield. Bronchial, malarial and bowel troubles have prevailed. Sanitary condition of county and public buildings very good.

Jones.—Dr. C. B. Woodley, Trenton. Measles, dysentery and one case of influenza reported.

Lenoir.—

Lincoln.—Dr. W. L. Crouse, Lincolnton. Dysentery has prevailed in all sections. Diseases usual to the time of year prevail now. Only a few cases have proven fatal. There is not room enough at the poor-house. Inmates are well cared for and kindly treated.

Macon.—Dr. J. M. Lyle, Franklin. Sanitary condition of county is good. About twenty cases of measles reported. Chicken cholera has been epidemic. Sanitary condition of public buildings is good.

Madison.—Dr. J. K. Hardwicke, Marshall. Sanitary condition of county good. No serious diseases, except three cases of typhoid in a family newly arrived from Asheville, the disease having been contracted there by the use of impure well-water. Sanitary condition of public buildings good.

Martin.—Dr. W. H. Harrell, Williamston. Mumps have prevailed in several sections. There has been considerable sickness, malaria and diarrhoea making their appearance rather earlier than usual. Four cases of whooping-cough reported. Sanitary condition of public buildings good, except poor-house needs whitewashing and the grounds need liming.

McDowell.—Dr. J. H. Gilkey, Marion. Pneumonia and dysentery have prevailed in some sections. Cholera-morbus to a limited extent. With these exceptions, the sanitary condition of the county is unusually good. Sanitary condition of public buildings is good.

Mecklenburg.—

Mitchell.—Dr. W. P. Upton, Bakersville. Whooping-cough has prevailed in all sections. Five deaths reported among children from the disease. Sanitary condition of poor-house is good. That of jail is bad. Steps are being taken towards building a new one.

Montgomery.—Dr. W. A. Simmons, Troy. Fifty cases of measles and two of typhoid fever reported. Whooping-cough and dysentery were the prevailing diseases. A few cases of pneumonia and pleurisy have followed the bronchitis, now popularly called "the grip." No improvements needed to public buildings.

Moore.—Dr. Gilbert McLeod, Carthage. Influenza and dysentery have prevailed generally. Sanitary condition of county and public buildings good.

Nash.—Dr. G. W. Lewis, Spring Hope. Influenza has been prevalent almost throughout the county. Pneumonia has appeared, but not to much extent. Whooping-cough reported. Also tubercular meningitis. Sanitary condition of public buildings good.

New Hanover.—Dr. F. W. Potter, Wilmington. Diarrhoeal diseases have prevailed in suburban portions. Diphtheria and typhoid fever reported. As far as I can learn, there seems to be but little sickness in the county. Jail is in good sanitary condition. Poor-house

burned. Contract has been awarded for the erection of a new brick building.

Northampton.—Dr. H. W. Lewis, Jackson. Dysentery has prevailed generally. One case of scarlatina reported. Sanitary condition of county good. Public buildings in tolerable sanitary condition. No efforts now at improvement, except the sinking of an artesian well in public square.

Onslow.—

Orange.—Dr. D. C. Paris, Hillsboro. Measles and mumps have prevailed generally. Sanitary condition of county not so good. Pneumonia, cholera-morbus and skin diseases have prevailed. One case typhoid reported. Sanitary condition of poor-house good. That of jail not good, but efforts being made to improve it. Seating arrangements of public schools not good.

Pamlico.—

Pasquotank.—

Pender.—Dr. S. S. Satchwell, Burgaw. Our diseases were more of a typhoid nature. Hog cholera was epidemic. The soil upon which our public buildings are erected is deficient in drainage.

Perquimans.—

Person.—

Pitt.—

Polk.—

Randolph.—Dr. J. W. Long, Randleman. "La Grippe" has prevailed to a limited extent. Summer diarrhoea among infants is becoming quite common. We have some dysentery, pneumonia and typhoid fever. Jail is old-fashioned and poor-house overcrowded. Sanitary condition is as good as these conditions will permit. We are making an effort to have more room at poor-house, and have the co-operation of the commissioners.

Richmond.—

Robeson.—Dr. R. F. Lewis, Lumberton. Whooping-cough and measles have prevailed.

County in fair sanitary condition. Public buildings also.

Rockingham.—

Rowan.—Dr. J. J. Summerell, Salisbury. Measles, typhoid and a few cases of cerebro-spinal meningitis have prevailed. "La Grippe" to a limited extent, with pneumonia, bronchitis and other lung troubles as *sequelæ*, has been severe in old people, and some have succumbed to the *sequelæ*. Bowel complaints in children have prevailed and been fatal in some cases. Such diseases have come earlier than usual and have been rather more fatal. Public buildings in good sanitary condition; and though space allotted inmates of jail is rather small, there has been but little sickness.

Rutherford.—Dr. E. B. Harris, Rutherfordton. A few cases of flux. Sanitary condition of county is very good. Have had influenza and some flux at poor-house.

Simpson.—Dr. J. A. Stevens, Clinton. Two cases of meningitis. Whooping-cough, mumps and influenza are very prevalent. A few cases malarial fever, bronchitis and pneumonia. Sanitary condition of poor-house very good. Jail is not in a suitable location, and is a very old, wooden building. A new jail is certainly needed.

Stalin.—Dr. R. L. Davis, Bryson City. General sanitary condition of county is very good. No sickness except measles and a few cases of pneumonia. Sanitary condition of public buildings just fairly good.

Stokes.—

Surry.—

Swain.—

Transylvania.—

Tyrrell.—Dr. Ab. Alexander, Columbia. Sanitary condition of county very good. That of public buildings good, except jail, which is in bad condition.

Union.—Dr. W. C. Ramsay, Monroe. Diarrhoea and dysentery have prevailed. Sani-

tary condition of county has been fairly good. Poor-house in good sanitary condition. Jail bad.

Vance.—Dr. A. Cheatham, Henderson. Sanitary condition of county has been good for this time of year. There has been sickness in poor-house, but not due to any local cause. Jail needs some improvement.

Wake.—Dr. Jas. McKee, Raleigh. Sanitary condition of county good. The city of Raleigh is under the best sanitary discipline in the State. Fire-escapes have just been placed on all buildings used as public halls, hotels, tenements or boarding-houses. Public buildings in good sanitary condition. Enlargements and repairs are being made to the work-house, which will add very materially to the same. One case of measles and two of scarlatina reported.

Warren.—Dr. P. J. Macon, Warrenton. More pneumonia than usual for time of year. One case typhoid fever reported. Two cases purpura hæmorrhagica in horses—following distemper. Sanitary condition of public buildings is excellent.

Washington.—

Watauga.—Dr. W. B. Council, Boone. "La Grippe" has prevailed generally. Sanitary condition of county first class in every particular. That of public buildings is good.

Wayne.—Dr. W. H. Cobb, Jr., Goldsboro. Several cases of whooping-cough reported. Dysentery, sciatica, rheumatism, rubeola and "La Grippe" (two cases) reported. A severe epidemic of choleraic diarrhœa occurred at poor-house—very fatal. Am trying to have water-works introduced into jail.

Wilkes.—

Wilson.—Dr. R. W. King, Wilson. Sanitary condition of jail good, and cannot be improved at present, until we get sewage. Poor-house excellent, with the exception of the colored wards, which show improvement.

Yadkin.—Dr. Q. R. Harding, Yadkinville. Pneumonia and malarial fevers have prevailed. Sanitary condition of public buildings about as last report.

Yancey.—Dr. J. L. Ray, Barasville. Sanitary condition of county is very good. Two cases whooping-cough and one of hæmorrhagic malarial fever reported. Sanitary condition of public buildings moderately good.

Condition of Jails and Poor-houses by Counties for April, 1890.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....	5	700			110	600		
Alexander.....								
Alleghany.....	3			2	2			0
Anson.....								
Ashe.....								
Beaufort.....								
Bertie.....	3			1	14			
Bladen.....	4				6			
Brunswick.....					9			
Buncombe.....	11	1,000		6	28	800		10
Burke.....								
Cabarrus.....	8	1,201	1	0	22	316	16	6
Caldwell.....	5	1,060	2	1	6	1,200	0	2
Camden.....								
Carteret.....	1	1,700	1		0			
Caswell.....	7	400		0	21	1,000	9	3
Catawba.....	4	1,100	9	2	29	750	9	9
Chatham.....	2	2,900	1	1	23	1,150	19	11
Cherokee.....	4	1,644	2	3	3	820	1	
Chowan.....	3	1,280	0	1	12	2,621	2	1
Clay.....								
Cleveland.....	10	684		4	23	997		5
Columbus.....	3	5,526		0	9	486		0
Craven.....	10	1,000	5	3	21	950	7	1
Cumberland.....	8	800	7	6	11	1,000	8	7
Currituck.....								
Dare.....								
Davidson.....	4	10,912	0	0	21	721	0	5
Davie.....								
Duplin.....					26	800		
Durham.....	12	1,000		5	316			8
Edgecombe.....	10	1,658		4	29	3,076		2
Forsyth.....	13	900	8	6	520		10	9

a. Includes 5 in house of correction. b. Includes 20 in house of correction. c. Includes 26 in house of correction.

Condition of Jails and Poor-houses by Counties for April, 1890. (CONTINUED.)

COUNTIES.	JAIL.					POOR-HOUSE.				
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.		Number inmates in.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	
Franklin.....	4	1,550				20	550			2
Gaston.....	3	2,535		1		11	3,060			2
Gates.....										
Graham.....										
Granville.....						18	1,000			
Greene.....						10	500			1
Guilford.....	27	402		9		31	1,200			10
Halifax.....	8			2		57				7
Harnett.....										
Haywood.....										
Henderson.....	3	155	2	1		7		4		4
Hertford.....										
Hyde.....										
Iredell.....	16	701				19	583			
Jackson.....	4	2,000	1			1	2,000	2		
Johnston.....	2	8,000	0	0		18	900	4		6
Jones.....	1	5,520				6	840			
Lenoir.....										
Lincoln.....	4	1,928				27	400			
McDowell.....	10	550	4	6		8	650	2		1
Macon.....	10	510	3	2						
Madison.....	5	505	0	0		6	2,109	0		0
Martin.....	1	1,000	0	0		13	00	2		2
Mecklenburg.....										
Mitchell.....										
Montgomery.....						12	900			
Moore.....	1	9,600	0	0		12	608	2		3
Nash.....	4		1	1		38		11		10
New Hanover.....	9	550	6	6		22 ^a		5		16
Northampton.....						37	800	13		17
Onslow.....										
Orange.....	5	512	1	2		31	2,048	12		12
Pamlico.....										

^a. Includes 4 in house of correction.

Condition of Jails and Poor-houses by Counties for April, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	0				4		2	2
Perquimans.....								
Person.....								
Pitt.....								
Polk.....								
Randolph.....	5	1,324	3	3	30	508	11	9
Richmond.....								
Robeson.....	18	500			9	800		
Rockingham.....								
Rowan.....	15	500	6	10	17	2,000	2	2
Rutherford.....	2	2,736		1	26	966		4
Sampson.....	4				22			
Stanly.....								
Stokes.....								
Surry.....								
Swain.....	0							
Transylvania.....								
Tyrrell.....	0				1	1,190	0	0
Union.....	2	2,000			25	2,500		2
Vance.....	1	2,511	2		19	9,678	5	4
Wake.....	12	2,255						
Warren.....					19	1,769		3
Washington.....								
Watauga.....	3				7			
Wayne.....	8	1,200	1	4	12	910	2	4
Wilkes.....								
Wilson.....	3				32			
Yadkin.....	1			2	23			8
Yancey.....	6	460	0	3				

Meteorological Report for April, 1890.

STATIONS.	TEMPERATURE.										NO. DAYS.					Total rainfall, including hail, snow and sleet (in inches)	Prevailing wind.
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	on which rain fell, including hail, snow and sleet.		
Asheville.....																	
Chat'oga, Tenn.....	62.4	86.0	8	38.0	11	48.0	.....	31.0	11	5.0	3	10	11	9	12	3.94	S. W.
Charleston, S. C.....	65.0	83.0	15	47.0	2	41.0	.....	26.0	.....	6.0	.....	11	10	9	7	2.58	S. W.
Charlotte.....																	
Columbia, S. C.....	61.0	86.0	14	40.3	11	44.0	.....	32.0	.....	5.0	.....	9	12	9	7	2.19	S.
Hatteras.....	54.0	74.0	14	44.0	2	30.0	.....	20.0	12	6.6	18	14	10	6	10	4.28	S. W.
Kitty Hawk.....	60.8	83.0	9	37.0	11	46.0	.....	29.0	14	9.0	1	4	17	9	13	2.99	S. W.
Knoxville, Tenn.....	66.0	80.0	8	35.0	11	45.0	.....	34.0	11	4.0	17	10	8	12	12	4.10	S. W.
Lynchburg, Va.....	59.2	85.0	9	28.0	2	57.0	.....	41.0	12	4.0	26	12	9	9	13	1.98	S.
Norfolk, Va.....	57.5	84.0	9	38.0	2	46.0	18.9	38.0	12	4.0	(a)	12	19	8	15	3.70	N. E.
Raleigh.....	50.6	86.0	14	31.0	2	55.0	22.1	31.0	3	3.0	13	10	13	7	10	1.96	S. W.
Southport.....	60.1	75.0	(b)	38.9	(c)	37.0	.....	27.0	11	6.2	17	9	15	6	8	1.86	S. W.
Wake Forest.....																	
Wilmington.....	61.0	86.0	14	38.0	20	48.0	.....	29.0	.....	5.0	.....	13	10	7	7	2.73	S. W.

Barometer.

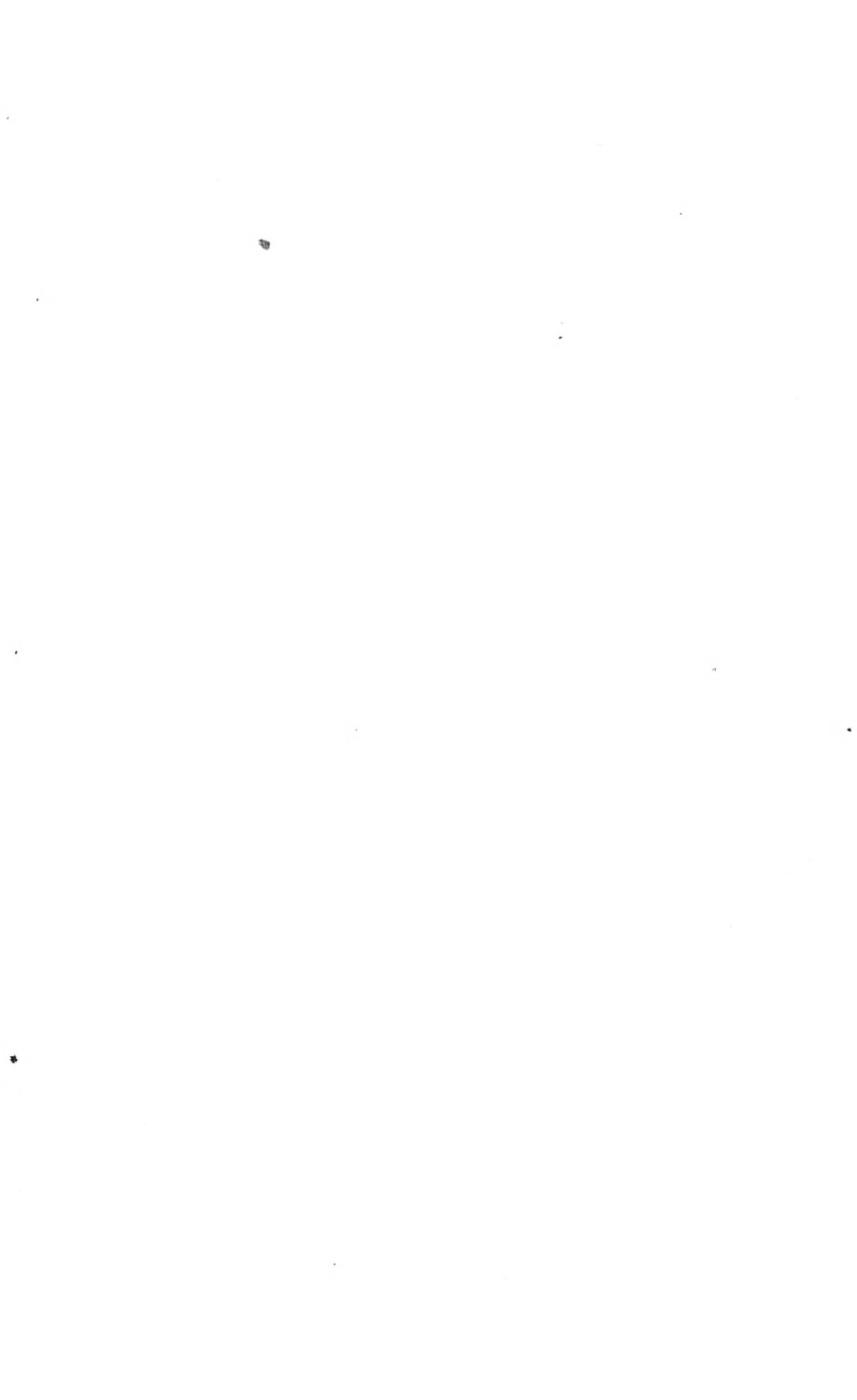
STATIONS.	MEAN	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Asheville, N. C.....						
Chat'oga, Tenn.....	30.144	30.465	21	29.768	9	.697
Charleston, S. C.....	30.172	30.439	2	29.759	9	.740
Charlotte, N. C.....						
Columbia, S. C.....						
Hatteras, N. C.....	30.170	30.570	2	29.650	9	.910
Kitty Hawk, N. C.....						
Knoxville, Tenn.....	30.153	30.499	21	29.719	9	.780
Lynchburg, Va.....	30.148	30.652	2	29.464	9	1.188
Norfolk, Va.....	30.143	30.649	2	29.627	9	1.022
Raleigh, N. C.....	30.164	30.625	2	29.642	9	.983
Southport, N. C.....						
Wake Forest, N. C.....						
Wilmington, N. C.....	30.170	30.550	2	29.690	9	.860

a. 1st and 5th. b. 11th, 26th and 30th. c. 11th and 20th.

Mortuary Report for April, 1890.

[illegible]

* Population not given, and therefore death-rate not known. † Cerebro-spinal meningitis.



BULLETIN

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VOL. V.

JUNE, 1890.

No. 3.

A New Method of Determining Whether Cess-pools, Stables, Etc., Drain into Neighboring Wells.

The present paper has been prepared with a view of describing a simple and inexpensive method of determining whether stables, privies, cess-pools, or any other deposits of filth, which may lay in the immediate neighborhood of a well, drain into it. In a common porous soil surface filth in solution may quite readily penetrate to underground water, and thus, in the course of time, travel a considerable distance and reach a well quite remote. This fact is well known. But it is always uncertain how far and in what direction such travel may extend. The varying circumstances of soil, slope of surface and of rock, depth of well, etc., preclude any general rules.

The eye and the sense of taste form no reliable testing instruments, for the clearest, most tasteless, or most sparkling well-waters, may yet be solutions of the contents of neighboring cess-pools and out-houses, and thus contain the germs of dreaded diseases. Several methods

have been tried from time to time to trace sources of pollution in wells. A solution of aniline dyes has been poured into such suspected sources, and after a few days the well-water has been examined by the eye for its color. But the eye is only slightly sensitive to a weak solution.

Again, a half bushel or so of salt has been thrown into the filthy places, and the sense of taste called in to detect its presence in the well-water, or the water has been analyzed for chlorine. But the amount of salt required, and the unreliability of the sense of taste, and the expense of chemical analyses, render the method unsatisfactory. I am not aware of any process which seems simple, inexpensive and reliable. Chemical analysis will detect the presence of polluting matter, and thus indirectly suggest its source. But such an analysis requires an expert.

It occurred to the writer to make use of the spectroscope in testing, and the following method of research for sources of pollution in various wells scattered about the city of Lawrence was developed.

It is familiar to all that a glass prism will separate a ray of sunlight into the seven colors of the spectrum. If the ray comes from a metal which is vaporized in a hot, colorless flame—as in a Bunsen gas flame—the spectrum no longer consists of all the colors, but of one or more bright bands, characterized by their color and position in the spectrum.

Thus sodium gives a bright yellow band, which is in the position of the yellow in a Swiss spectrum, while calcium gives two, a red and green band, in their proper places. The spectroscopist, which is essentially a glass prism, and a small telescope to observe the spectrum with, can thus detect by their characteristic bands the presence of substances which can be volatilized in a colorless flame.

Further, there can be no mistake, for no two metals give the same bands. The question arises, Can small quantities of the substances in solutions be thus detected? Prof. Schellen asserts the sure and easy determination of sodium, when less than the 180,000,000th part of a grain is present, and of lithium when less than 40,000,000th part of a grain. The delicacy of the spectroscopic tests thus exceeds the chemical. Indeed, by the spectroscopist several new metals, as thallium, rubidium, cesium and iridium, have been discovered. For the purpose on hand, then, the spectroscopist provides an exceedingly simple method.

A solution of carbonate or chloride of lithium, an ounce to a quart of water, was poured into the suspected sources of pollution in the neighborhood of a well, and after a week or so some of the well-water was examined in the spectroscopist. Lithium gives one bright red band toward the remote red end of the spectrum. It is impossible to mistake it, even if the solution holds less than one part in one million. The sensitiveness of the test is greatly increased by boiling down the water to be examined, say a quart to half an ounce. A platinum wire is dipped into the water thus prepared, and then held in the flame of a Bunsen burner.

Nine wells were examined, situated back of the blocks on the principal street in Lawrence. These wells are located, as regards stables, out-houses, etc., about as is customary in small cities, and their waters are used quite generally for drinking purposes by the families in the blocks. The test showed direct communication with a privy, thirty feet distant, into one of the wells. Other wells are now being tested more thoroughly, as the method was devised too recently to allow sufficient time, in a four months' absence of rain, for the lithiated water to permeate through the dry soil to the wells. But sufficient has been done, it seems, to show the reliability of the method and the ease of making it.—*Prof. Lucien I. Blake, before the Kansas Sanitary Association, and published in The Sanitary News.*

Disinfection of Infectious Stools.

Uffelman (*Berl. Klin. Wochschr.*) finds that the most active of all disinfectants are the mineral acids—sulphuric and hydrochloric—then corrosive sublimate, carbolic acid, etc. He points out, what is often overlooked, that the duration of the influence of the disinfectant on the feces is of the utmost importance; and that even with the most powerful of these substances, it is impossible to destroy infectious matter in a few minutes. He recommends for the thorough disinfection of fluid or semi-fluid stools the following methods: Sulphuric or hydrochloric acids, diluted with double amount of water, should be mixed with equal parts of the fecal matter, and allowed to stand, with the former acid, two hours, with the latter twelve hours. In using carbolic acid, a five per cent. solution ought to be taken, added to the stools in equal parts, and left for twenty-four hours. Sublimate should be employed as two parts in one thousand with half a part of hydrochloric acid. An equal quantity of this is added to the motions and set aside for at least half an hour, but preferably for twenty-four. Quicklime ought to be added to the

stools in the proportions of $2\frac{1}{2}$ per cent., and allowed to remain twenty-four hours; while in case of lime-water a similar time should be given, and the disinfectant employed in the ratio of two and one-half parts to one of feces.—*Boston Medical and Surgical Journal.*

Review of Diseases for May, 1890.

Cerebro-spinal Meningitis—Pender.

Chicken Cholera—Franklin, Johnston, Jones, Lincoln, Macon, Warren.

Cholera Morbus—McDowell, Moore.

Diarrhœa—Alleghany, Bertie, Caldwell, Cumberland, Duplin, Forsyth, Franklin, Halifax, Iredell, Johnston, Mitchell, Nash, Randolph, Rowan, Sampson, Union, Vance, Warren, Wayne.

Diphtheria—Sampson.

Distemper (horses)—Henderson, Yancey.

Dysentery—Alamance, Alleghany, Bertie, Buncombe, Caldwell, Chatham, Chowan, Cumberland, Davidson, Duplin, Forsyth, Franklin, Gaston, Greene, Guilford, Halifax, Henderson, Iredell, Jackson, Jones, Lincoln, McDowell, Mitchell, Montgomery, Moore, Nash, Northampton, Onslow, Orange, Randolph, Sampson, Union, Vance, Warren, Wayne, Wilson.

Flux—Rutherford.

Hog Cholera—Cherokee, Pender.

Influenza—Sampson.

Malarial Fever—Caswell, Cherokee, Chowan, Edgecombe, Gaston, Greene, Guilford, Iredell, Jones, Martin, Montgomery, Nash, Onslow, Pender, Sampson, Wayne, Wilson.

Malarial Fever, Hemorrhagic—Caldwell, Orange.

Measles—Alamance, Cabarrus, Caswell, Chatham, Cherokee, Davidson, Duplin, Forsyth, Greene, Henderson, Iredell, Jackson, Madison, New Hanover, Orange, Wayne.

Mumps—Caswell, Iredell, Martin, Moore, Onslow, Sampson.

Pneumonia—Alleghany, Caswell, Cumberland, Guilford, Randolph.

Rheumatism—Alleghany, Montgomery, Randolph.

Rubeola—Chatham.

Scarlatina—Martin, Nash, New Hanover, Wake.

Typhoid Fever—Chatham, Chowan, Cleveland, Davidson, Forsyth, Iredell, Montgomery, Moore, New Hanover, Northampton, Orange, Pender, Rowan, Sampson, Vance, Warren, Wayne.

Whooping-cough—Forsyth, Franklin, Guilford, Lincoln, Martin, Montgomery, Sampson.

Summary of Mortuary Statistics from Towns for May, 1890.

	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Aggregate population	54,385	47,312	101,700
Aggregate deaths	61	85	146
Temporary annual death rate per 1,000	13.5	21.5	17.2
Deaths under 5 years	—	—	61
<i>Causes of death.</i>			
Typhoid fever	3	0	3
Whooping-cough	0	1	1
Pneumonia	6	5	11
Consumption	11	9	20
Brain diseases	0	2	2
Heart diseases	2	8	10
Neurotic diseases	3	4	7
Diarrhœal diseases	9	10	19
All other diseases	19	37	56
Accident	3	1	4
Suicide	1	0	1
Still-born	4	8	12
Total	61	85	146

Summary of Reports from County Superintendents for May, 1890.

Alamance—Dr. George W. Long, Graham. Dysentery and measles have prevailed extensively throughout the county, with an occasional death. The sanitary condition of public buildings is good, except jail.

Alexander—

Allegany.—Dr. George Daughton, Sparta. Dysentery and diarrhoea in some sections. One case of pneumonia and one of inflammatory rheumatism have been reported. Sanitary condition of public buildings is good.

Ashe.—

Anson.—

Beaufort.—

Bertie.—Dr. H. V. Dunstan, Windsor. Diarrhoea and dysentery have prevailed in many sections. The sanitary condition of county is fairly good; that of public buildings is first-rate, they being thoroughly cleaned and white-washed.

Bladen.—Dr. Newton Robinson, Elizabeth-town. No epidemic has prevailed in any part. The sanitary condition of county is good.

Brunswick.—

Buncombe.—Dr. H. B. Weaver, Asheville. The sanitary condition of county is most excellent. There is some dysentery in some portions. Sanitary condition of public buildings is good in every respect.

Burke.—

Cabarrus.—Dr. Robert S. Young, Concord. About forty cases of measles and three of typhoid fever have occurred. The sanitary condition of county and public buildings is good.

Caldwell.—Dr. A. A. Kent, Lenoir. The general health of the county has been good for the season, with rather less than usual number of cases of dysentery, diarrhoea, cholera morbus and infantum. There has been one case of hemorrhagic malarial fever reported. The sanitary condition of public buildings is moderately good.

Camden.—

Carteret.—Dr. M. F. Arendell, Morehead City. So far as I can learn, the sanitary condition of county is very good. Also that of the public buildings.

Caswell.—Dr. R. H. Williamson, Yanceyville. Pneumonia, measles, mumps, dysentery and intermittent fever with typhoid tendencies have prevailed in nearly all portions of the

county. The general sanitary condition of county is good. The sanitary condition of public buildings is good. The commissioners and magistrates in joint meeting have ordered the establishment of a county work-house. There was one death at the poor-house from softening of the brain.

Catawba.—

Chatham.—Dr. L. A. Hanks, Pittsboro. There have been reported about fifteen cases of measles and two of typhoid fever. Dysentery has prevailed in several sections. Rubella is epidemic. The sanitary condition of county is good; that of public buildings is very good and will improve.

Cherokee.—Dr. J. F. Abernathy, Murphy. About twenty cases of measles reported. There are a few cases of fever existing, which is generally believed to be bilious remittent. Hog cholera still prevails. There is no effort towards improving the sanitary condition of public buildings.

Chowan.—Dr. R. W. Winborne, Barnitz. Two cases of typhoid fever reported. Gastro-intestinal and malarial troubles have prevailed in all portions. These diseases have been of a very mild type. The poor-house is in good condition; and war is being waged against the lice which have recently made their appearance in the jail. The inmates are all healthy.

Chy.—

Cleveland.—Dr. O. P. Gardener, Shelby. Typhoid fever has prevailed in the north-eastern portion of the county. The sanitary condition of county and public buildings fairly good.

Columbus.—Dr. Isaac Jackson, Whiteville. The sanitary condition of county is good. No epidemic has prevailed. Public buildings are in good sanitary condition.

Craven.—

Cumberland.—Dr. J. A. Hodges, Fayetteville. Dysenteric and diarrheal diseases are prevailing to a limited extent. Three cases of pneumonia reported. All the public buildings are clean and have recently had their interiors white-washed.

Currituck—

Dare—

Davidson—Dr. R. L. Payne, Jr., Lexington. Dysentery in comparatively mild type has prevailed, and your reporter has seen and heard of a few scattering cases of measles and typhoid fever. The general health of the county is better than at this time last year. The sanitary condition of public buildings is good, except as before stated.

Davie—

Duplin—Dr. James W. Blount, Kenansville. The general sanitary condition of county is good. Diarrhœa and dysentery have prevailed to considerable extent. Measles in one section only. Poor-house is in good sanitary condition, and no sickness among inmates.

Durham—Dr. N. M. Johnson, Durham. No epidemic has prevailed. The continued good health in Durham County is remarkable. The sanitary condition of public buildings is good.

Edgecombe—Dr. J. M. Baker, Tarboro. Malarial fevers have prevailed in some sections. The sanitary condition of county is good.

Forsyth—Dr. D. N. Dalton, Winston. A few cases each of measles, whooping-cough and typhoid fever have occurred. Dysentery and diarrhœa prevailed. The sanitary condition of county is good. Also that of public buildings.

Franklin—Dr. E. S. Foster, Louisburg. Whooping-cough has prevailed in the eastern portions. Diarrhœa and dysentery are prevailing in many parts. The dysentery is quite rebellious to treatment in some cases. There has been an epidemic of chicken cholera. The sanitary condition of public buildings is very good.

Gaston—Dr. E. B. Holland, Dallas. Dysentery and malarial fevers have prevailed in most portions. The sanitary condition of the county is fair, and that of the public buildings is good.

Gates—

Graham—

Granville—Dr. J. M. Hays, Oxford. The sanitary condition of county is very good.

Greene—Dr. E. H. Sugg, Snow Hill. Measles and dysentery have prevailed, with some cases of malarial fever. The sanitary condition of county is good. Also that of public buildings.

Guilford—Dr. E. R. Michaux, Greensboro. During the month we have had considerable sickness, principally bowel troubles. Remarkably few deaths have resulted. Have had a good many cases of whooping-cough and some malarial fever. The former has been rather peculiar in that it has not usually been attended by the usual "whoop." One or two cases have had as sequelæ lobular pneumonia. The sanitary condition of public buildings is very good, though the jail is still rather crowded, but we hope this is only temporary. The jail has recently undergone a thorough cleansing and disinfecting. The poor-house is kept quite nice, especially considering the class of inmates.

Halifax—Dr. A. B. Pierce, Weldon. Dysentery and infantile diarrhœa have prevailed in several portions of the county. The general sanitary condition of the county is good, as far as heard from. The poor-house is crowded, but have promise of reform.

Harnett—

Haywood—

Henderson—Dr. W. B. Reese, Hendersonville. Eighteen cases of measles have been reported. Dysentery is almost an epidemic. There has been some distemper among cattle. The sanitary condition of county is fair. The weather is warm and dry. The sanitary condition of the poor-house is good; that of the jail fair.

Hertford—

Hyde—

Iredell—Dr. M. W. Hill, Statesville. There has been no unusual sickness in the county during the month of May, still there has been a large number of deaths. Dysentery, diarrhœa, typhoid and malarial fevers, measles and mumps are the diseases most prevalent. There has been no sickness in either jail or poor-

house; to a kind Providence be the praise. The poor-house buildings are badly in need of repair, and the jail needs to be modernized, as indicated in last report, but efforts at improvement are *nil*.

Jackson—Dr. J. M. Candler, Dillsboro. The sanitary condition of county is good. A few cases of dysentery and measles reported. That of public buildings is good.

Johnston—Dr. L. L. Sasser, Smithfield. Gastro-intestinal troubles have prevailed. There has been an epidemic of chicken cholera. The sanitary condition of county is very good. That of public buildings is good.

Jones—Dr. C. B. Woodley, Trenton. Malarial fevers and dysentery have prevailed, and there has been an epidemic of chicken cholera.

Lenoir—

Lincoln—Dr. W. L. Crouse, Lincolnton. Dysentery and whooping-cough have prevailed. There has been an epidemic of chicken cholera. The county is healthier now than it was last month. Sanitary condition of public buildings is good.

Macon—Dr. J. M. Lyle, Franklin. About twenty-five cases of measles have been reported. There has been an epidemic of chicken cholera. The sanitary condition of county and public buildings is good.

Madison—Dr. Jas. K. Hardwicke, Marshall. About forty cases of measles have been reported. The diseases seem to be of a severe form; but with this exception the sanitary condition of the county is good. That of public buildings is also good.

Martin—Dr. W. H. Harrell, Williamston. Whooping-cough and mumps have prevailed in several portions. Three cases of scarlatina have been reported. Malarial troubles are beginning early on account of low lands having been covered with water during the winter and now subjected to the summer heat. The sanitary condition of public buildings is good.

McDowell—Dr. J. H. Gilkey, Marion. Dysentery and cholera morbus have prevailed to a limited extent. With these exceptions the health and general sanitary condition of the

county have been very good. Also that of public buildings.

Mecklenburg—

Mitchell—Dr. W. P. Upton, Bakersville. The sanitary condition of the county is reasonably good. Dysentery and diarrhoea have prevailed in some portions, but not in a malignant form. No fever cases have been reported. The sanitary condition of poor-house is good; but that of jail is not so good. Efforts are being made to build a new jail.

Montgomery—Dr. W. A. Simmons, Troy. Twenty cases of whooping-cough and one of typhoid fever have been reported. Dysentery has prevailed in almost all portions. No deaths have resulted from it, and there are no other diseases except rheumatism and a few sporadic cases of chills and fever. Sanitary condition of public buildings good.

Moore—Dr. Gilbert McLeod, Carthage. Two cases of typhoid fever reported. Cholera morbus and dysentery in a mild form have prevailed in all portions of the county. A few cases of mumps have been reported. The sanitary condition of county and public buildings is good. There has just been completed one of the best arranged court-houses in the State. Offices large and airy, and the court-room spacious and comfortable.

Nash—Dr. G. W. Lewis, Springhope. Diarrhoea and dysentery have prevailed. One case of scarlatina has been reported. There has also been some remittent fever. The sanitary condition of county and public buildings is good.

New Hanover—Dr. F. W. Potter, Wilmington. Two cases of measles, two of scarlatina and four of typhoid have been reported. The sanitary condition of county is good; there is but little sickness. A new brick poor-house is being built to replace the one destroyed by fire. The jail is kept clean and the prisoners are healthy.

Northampton—Dr. H. W. Lewis, Jackson. Three cases of typhoid fever reported. Dysentery has prevailed in all sections. The sanitary condition of county is as good as usual.

No efforts are being made at present toward improving the sanitary condition of public buildings.

Onslow—Dr. J. L. Nicholson, Richlands. Dysentery prevailed in all sections, of mild type. Malarial fever and mumps reported. A skin disease, closely resembling scabies, has prevailed. Sad need of repairs at poor-house. Jail in good sanitary condition.

Orange—Dr. D. C. Parris, Hillsboro. Ten cases of measles, one of typhoid and one of hemorrhagic malarial fever have occurred. Dysentery and measles have prevailed in nearly all parts. Sanitary condition of poor-house good; that of jail not so good. No material improvement in the seating arrangement in public schools.

Pamlico—

Pasquotank—

Pender—Dr. S. S. Satchwell, Burgaw. Six cases of typhoid fever have been reported. The early prevalence of malarial diseases show that the malarial germ lived through the past warm winter and is vital and active early this spring. There has prevailed much bowel diseases, especially among children. That terrible disease, cerebro-spinal meningitis, has appeared in about eight bad cases in the county, fatal in character. Hog cholera has been epidemic.

Perquimans—

Person—

Pitt—

Polk—

Randolph—Dr. J. W. Long, Randleman. Dysentery and diarrhoea have prevailed in all the sections of the county that have been heard from. There has been a marked degree of sickness throughout the county, but the people have complained generally of bowel troubles. Pneumonia and rheumatism have occurred in a limited number of cases. The sanitary condition of jail is as good as the old-fashioned cells will permit, except that the jail-yard is not kept properly drained and the night-soil buckets are not changed oftener than every two days. Our poor-house is crowded. This is easily

shown by comparison. The average cubic feet allowed each inmate for the three winter months (December, January and February) being only 566, while the average for all the counties reporting for the same months is 1,308 cubic feet. And for the spring months we have had more paupers to care for than during the winter. I made a large diagram of the poor-house buildings, giving the exact dimensions of each and the position of each house, and then went before the conjoint meeting of our magistrates and commissioners the first Monday in June with this drawing, and endeavored to show the urgent necessity of more room. While the matter was given a very respectful hearing, and I feel has been brought more clearly to the minds of the people, I did not get an appropriation.

Richmond—

Robeson—Dr. R. F. Lewis, Lumberton. The county is in fair sanitary condition; also that of public buildings.

Rockingham—

Rowan—Dr. J. J. Summerell, Salisbury. The county has been measurably healthy during the month of May. Diarrhoeal diseases have prevailed, more or less, in all portions of the county; but not of great severity. Two or three cases of typhoid fever reported by Drs. Ramsay and Poole, and have had two cases in my own practice. Suppose other cases have occurred, but my brethren have not thought to report them. Have heard of no epidemic among domestic animals. The sanitary condition of poor-house is good. There has been no sickness during the past month of any consequence. The jail is in fair sanitary condition.

Rutherford—Dr. E. B. Harris, Rutherfordton. Flux has prevailed in all portions, in mild form. There is nothing of any importance to report; the community is very healthy. The sanitary condition of public buildings is very good.

Sampson—Dr. J. A. Stevens, Clinton. Typhoid fever reported from the lower part of

the county. Dr. A. Holmes reports three cases of diphtheria. Many cases of mumps, whooping-cough, diarrhoea and dysentery. A few cases of malarial fever. Influenza has prevailed to a limited extent this month. Sanitary condition of public buildings good.

Stanly—

Stokes—

Surry—

Swain—

Transylvania—

Tyrrell—

Union—Dr. W. C. Ramsay, Charlotte. Dysentery and diarrhoea have prevailed in almost all parts of the county. The disease exists mainly among children. The sanitary condition of county is generally good. That of poor-house is good; of jail, bad.

Vance—Dr. A. Cheatham, Henderson. Five cases of typhoid fever reported. Diarrhoea and dysentery have prevailed generally. The health of the inmates of the poor-house has improved.

Wake—Dr. Jas. McKee, Raleigh. One case of scarlatina reported. The sanitary condition of the county is remarkably good. All the public buildings in good sanitary condition.

Warren—Dr. P. J. Macon, Warrenton. A few cases of typhoid fever reported. Dysen-

tery and choleraic diarrhoea have prevailed in all portions. There has been an epidemic of chicken cholera. The sanitary condition of public buildings is good.

Washington—

Watauga—

Wayne—Dr. W. H. Cobb, Jr., Goldsboro. Dysentery and diarrhoea have prevailed in some parts of the county. Several cases of measles and one of typhoid fever have been reported. Remittent, intermittent and continued fevers have been reported. Not a great deal of sickness in either city or county. The general sanitary condition of public buildings is good, but still striving for improvements.

Wilkes—

Wilson—Dr. R. W. King, Wilson. Dysentery and malaria have prevailed in some portions. The health of the county and town is good. Sanitary condition of public buildings is very good. There is some improvement at the poor-house.

Yadkin—

Yancey—Dr. J. L. Ray, Burnsville. The general sanitary condition of county has been excellent for the past month. There has been some distemper among horses. The sanitary condition of public buildings is moderately good at present.

Condition of Jails and Poor-houses by Counties for May, 1890.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....	1	1,000			44a	600		
Alexander.....								
Alleghany.....	1			1	2			0
Anson.....								
Ashe.....								
Beaufort.....								
Bertie.....	1			0	12			0
Bladen.....								
Brunswick.....								
Buncombe.....	22			10	30			16
Burke.....								
Cabarrus.....	12	1,001	0	6	22	1,141	6	8
Caldwell.....	5	1,060	2	4	6	1,260	0	2
Camden.....								
Carteret.....	1	1,720	1	1	0			
Caswell.....	5	450			24	1,000	9	3
Catawba.....								
Chatham.....	4	2,000	2	3	23	1,450	10	10
Cherokee.....	0				3	830		
Chowan.....	1	1,800	0	0	12	2,621	2	1
Clay.....								
Cleveland.....	9	684		5	23	997		6
Columbus.....	3	1,800		0	11	2,412		0
Craven.....								
Cumberland.....	8	800	6	7	12	1,000	8	9
Currituck.....								
Dare.....								
Davidson.....	5	2,188	0	0	22	721	0	4
Davie.....								
Duplin.....	b				26	900		
Durham.....	10	1,000		5	37c	1,000		8
Edgecombe.....	6	2,764		3	26	3,046		2
Forsyth.....	8	1,000	4	2	24		6	3

a. Includes 10 in work-house. b. No jail. c. Includes 20 in work-house.

Condition of Jails and Poor-houses by Counties for May, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Franklin.....	2			1	19			2
Gaston.....	3	2,535	0	1	13	2,589	0	3
Gates.....								
Graham.....								
Granville.....	10	2,500			22	818		
Greene.....	2	500		2	10	1,000		1
Guilford.....	39	416		12	32	1,250		10
Halifax.....	4				61			
Harnett.....								
Haywood.....								
Henderson.....	3			2	8			
Hertford.....								
Hyde.....								
Iredell.....	25	418			21	528		
Jackson.....								
Johnston.....	1	4,000	0	0	1	900		
Jones.....	2	2,760			5	1,120		
Lenoir.....								
Lincoln.....	3	2,600			30	346		5
McDowell.....	7	550	3	5	9	590	2	1
Macon.....	4	1,120	0	2				
Madison.....	5	593	0	0	6	2,100	0	0
Martin.....	5	1,000	1	2	11	700	2	2
Mecklenburg.....								
Mitchell.....								
Montgomery.....	0				12	900		
Moore.....	1	9,600	0	0	12	698	1	3
Nash.....	4		1	2	35		10	6
New Hanover.....	9	550	6	5	20a	500	12	7
Northampton.....					37	800	13	17
Onslow.....	2	2,500			5	2,000	1	2
Orange.....	5	512	1	2	32	2,048	12	12
Pamlico.....								

a. Includes 3 in work-house.

Condition of Jails and Poor-houses by Counties for May, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	1				3			
Perquimans.....								
Person.....								
Pitt.....								
Polk.....								
Randolph.....	7	960	2	3	50	508	11	9
Richmond.....								
Robeson.....	7	768			9	800		
Rockingham.....								
Rowan.....	19				15			
Rutherford.....	5	1,368	2	5	26	996	6	4
Sampson.....	1				23			
Stanly.....								
Stokes.....								
Surry.....								
Swain.....								
Transylvania.....								
Tyrrell.....								
Union.....	4	2,000	0	2	22	2,500		2
Vance.....	4	2,514	3	3	18		5	3
Wake.....	14	1,901			55			
Warren.....	1	2,560		1	18	1,750		2
Washington.....								
Watauga.....								
Wayne.....	10	862	2	5	11	1,238	2	4
Wilkes.....								
Wilson.....	8					38		
Yadkin.....								
Yancey.....	2	1,152	2	2				

Meteorological Report for May, 1896.

STATIONS.	TEMPERATURE.										NO. DAYS.				Total rainfall, including hail, snow and sleet (in inches.)	Prevailing wind.	
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.			On which rain fell, including hail, snow and sleet.
Asheville.....																	
Chatoga, Tenn.	88.9	89.0	31	49.0	8	49.0	.....	30.0	9	4.0	25	12	13	6	13	3.95	S. W.
Charleston, S. C.	73.0	86.0	17	51.0	8	35.0	.....	21.0	.....	6.0	.....	13	8	10	16	3.67	S. W.
Charlotte.....	49.8	90.0	31	42.0	8	48.0	21.7	32.0	.....	9.0	.....	18	8	5	13	7.07	S. W.
Columbia, S. C.	72.0	91.0	31	45.0	8	46.0	.....	29.0	.....	10.0	.....	9	14	8	13	4.17	S.
Hatteras																	
Kitty Hawk.....	63.8	91.0	28	48.0	8	43.0	.....	37.0	16	6.5	22	4	18	9	12	3.80	N. E.
Knoxville, Tenn.	66.0	88.0	31	37.0	8	51.0	.....	35.0	9	7.0	26	13	9	9	15	4.34	S. W.
Lynchburg, Va.	66.3	88.0	21	38.0	9	50.0	.....	36.0	9	9.0	26	9	16	6	17	4.71	S.
Norfolk, Va.....	67.4	86.0	14	47.0	8	39.0	16.5	29.0	13	5.0	12	5	29	6	15	4.03	S.
Raleigh																	
Southport.....	71.1	84.0	18	47.5	8	36.5	.....	24.0	8	7.3	21	10	15	6	8	4.75	S. W.
Wake Forest.....																	
Wilmington	71.0	90.0	24	50.0	8	40.0	.....	26.0	24	5.0	27	8	15	8	6	5.26	S. W.

Barometer.

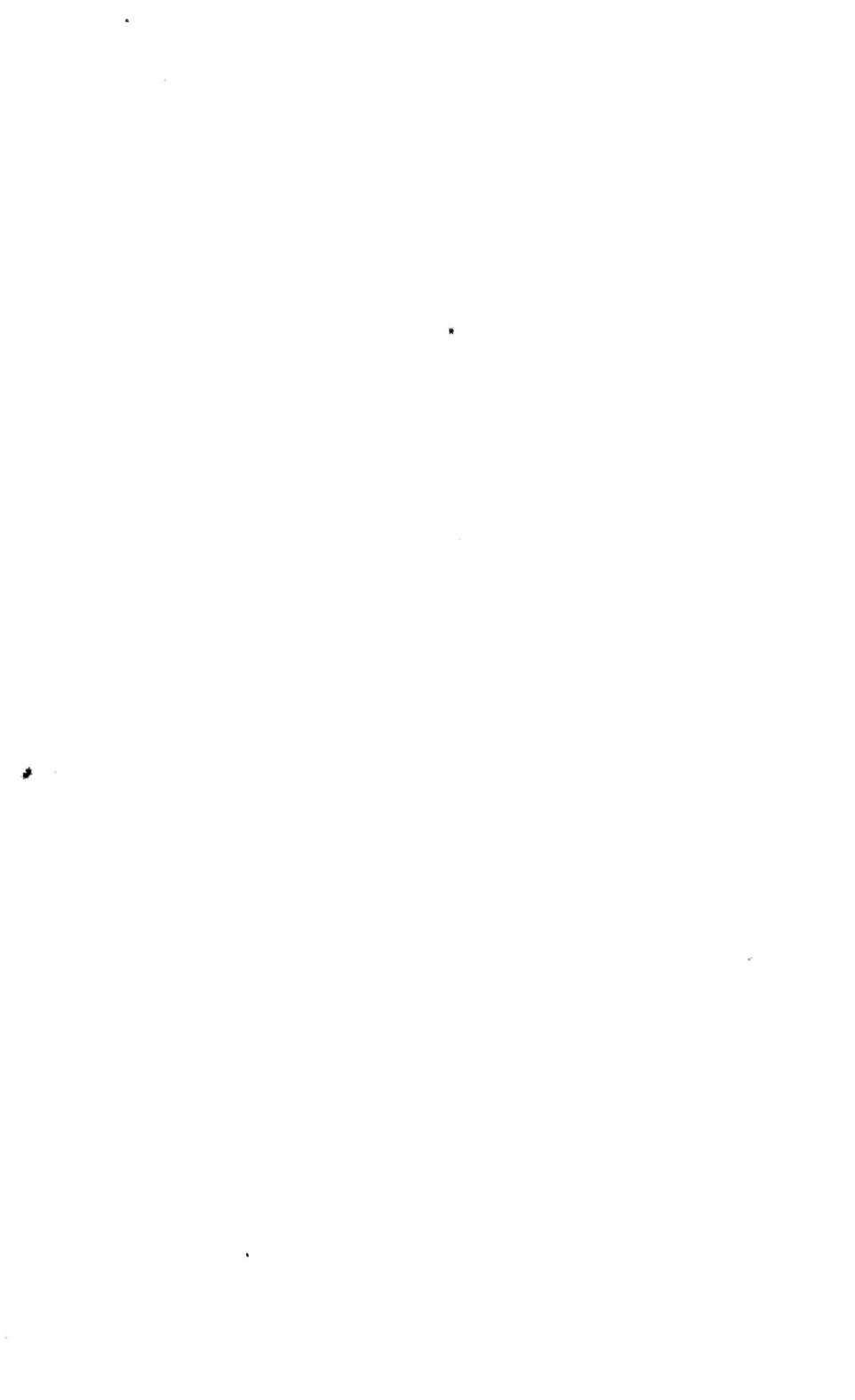
STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Asheville, N. C.						
Chattanooga, Tenn.	29.989	30.357	8	29.911	5	.446
Charleston, S. C.	30.014	30.392	9	29.785	1	.517
Charlotte, N. C.	30.001	30.302	9	29.706	6	.596
Columbia, S. C.						
Hatteras, N. C.						
Kitty Hawk, N. C.						
Knoxville, Tenn.	30.014	30.350	8	29.737	4	.613
Lynchburg, Va.	29.988	30.286	9	29.645	5	.641
Norfolk, Va.	29.994	30.299	9	29.679	20	.620
Raleigh, N. C.						
Southport, N. C.						
Wake Forest, N. C.						
Wilmington, N. C.	30.010	30.329	9	29.730	6	.590

Mortuary Report for May, 1890.

[illegible]







BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

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Domestic Filters for Drinking Water.

The *American Analyst*, March 20, 1890, contains an article by P. T. Austen, taken from the *Scientific American*, part of which we think well worth reproducing:

"During the last few years the subject of water purification has received much attention, and successful methods have been introduced for filtering and purifying water on a large scale. Filtration on a small scale, while successful in many cases, comes, as a rule, under housekeeping, and the success or failure of the method will, therefore, often depend entirely on the operative ability of some domestic. While I do not want to undervalue any of the excellent small filters now on the market, I desire to explain a simple method by which any housekeeper of average intelligence can make an inexpensive contrivance which will do its work in a way not easily surpassed by any filter that can be bought. It has been known for many years that the addition of a minute amount of alum to water containing bicar-

bonate of lime in solution (and most natural waters contain more or less of this substance) will cause the formation of a gelatinous precipitate. This precipitate entangles and collects the suspended matters and germs, forming coagulated and agglomerated masses which are easily removed by simple filtration. Waters containing clay or mud which is so fine that a mechanical filter cannot remove it, when treated with a small amount of alum can be filtered perfectly clear through a coarse filter. The alum thus added is not left in the water, but is removed by the filtration, for its active constituent, the aluminic sulphate, is decomposed and precipitated by the action of the dissolved bicarbonate of lime. This should be well understood, although if a minute amount of alum were left in the water its effect would not be noticeable, and even if present in larger amounts it would not be at all dangerous.

"The method of filtration is simple in the extreme. An oil bottle, or any long, narrow-necked bottle, serves for the filter. Tie around it a string soaked in kerosene, about

half an inch from the bottom, set the string on fire, and hold the bottle bottom upward. When the string is burnt out, the bottom of the bottle is thrust into cold water. If properly done, this causes the bottom of the bottle to split off evenly. The rim of the glass should now be burred off with a round file to remove any sharp edges that might be left. The bottle is then thoroughly cleaned and placed neck downward in a convenient support, as, for instance, through a hole bored in a shelf, or it may be allowed to stand in a wide-mouth bottle, resting by its shoulders on the rim of the mouth. A small handful of cotton wool is now thoroughly wetted by squeezing it in water, and shreds of it are dropped into the bottle until a layer of about two inches deep has been made. The shreds should be dropped in carefully so as to distribute them evenly, and not to let them pile up in the middle or at the sides. When enough cotton has been dropped in, a cup or two of water is poured in and the bottle gently tapped. This consolidates the mass and finishes the making of the filter bed. The amount of water needed to coagulate the water sufficiently for filtering need not, as a rule, exceed two grains to the gallon, and in many instances may be less, but in certain cases of very dirty waters, such as that of the Mississippi river, the amount of alum may be increased to four or even six grains per gallon. The alum is best kept in a solution of such strength that a teaspoonful of it will contain a grain. To save trouble, the following prescription will enable one to get enough of the solution put up at any apothecary's to last for a considerable time:

R. Alum 128 grains, distilled water 1 pint.

"I may add that the expense of this prescription, including the bottle, should not exceed fifteen cents.

"The treatment and filtration of the water is best done as follows: A gallon of water is placed in a clean tin pail and two teaspoonfuls of the alum solution are added. It will save time to make, once for all, scratches on the inside of the pail, showing the height of one, two or three gallons of water. It is then well

stirred with a clean tin dipper. It is best to keep this pail and dipper for this use alone. They should be kept scrupulously clean and frequently well scoured with Sapolio, or a similar kind of soap. After mixing, the water is allowed to stand five or ten minutes, and then poured, by means of the dipper, into the filter. It will run through rapidly if the filter bed has been properly prepared, and will be as clear as crystal, and not seldom will form an astonishing contrast with the original water. The first half-pint of the water passing through should be rejected. The filtered water may be caught in a pitcher, or any other convenient receptacle. A filter bed will last a day, but it is not advisable to use it longer. Each day the used filter-bed should be thrown away and a fresh one prepared. The method may, of course, be applied to any of the many filters in use, simply adding to the water to be filtered one or two grains of alum to the gallon. It will be a poor filter, indeed, that will not filter clear after this addition.

"Of late, attention has been drawn to the latent dangers in ice. It has been found that this apparently harmless and attractive substance may fairly reek with disease germs and filth of all kinds. Unless it is known from whence the ice comes, its use may be more dangerous than the use of water. Ice is sometimes derived from water that no one would think of drinking, as, for instance, ponds in cemeteries and from rivers in the neighborhood of sewer outlets, and as a result, may be indescribably foul. Aside from the danger of germs lurking in ice, there is risk in the indiscreet use of water cooled to an abnormally low temperature, since functional disorders are often caused by the drinking of very cold water. No water is so refreshing as a mountain spring, and one reason of this is that its temperature is just right. It is well to take hints that are given by nature, and the hint that the best temperature of drinking water is about fifty degrees Fahrenheit is a good one and worth following.—

Medical and Surgical Reporter.

Discouraged Children.

St. Paul tells those who have the charge of children to beware lest these tenderlings become discouraged, spiritless through severe treatment. Strictness with children is not a characteristic with American parents; but children sometimes lose their courage and their spirit through nervous strains of another kind. Suicide among children seems a frightful thing, yet we read in *The Child's Guardian* that it is common in Europe. What one paper calls "an extraordinary epidemic," and which it says "is spreading," has shown itself among the school children of Frankfort-on-Main. Lately, two or three children under the age of twelve, have attempted to commit suicide, after being reproved by their parents for some fault. Not long ago a school boy of ten hanged himself to escape receiving a thrashing from his uncle. Recently two little girls of nine and eleven, the daughters of respectable parents, were kept in after school for some trifling fault, and on leaving agreed that, rather than face the punishment which they knew awaited them at home, they would jump into the river and drown themselves; when they got to the bank, however, the courage of the younger child forsook her, and she stood knee deep in the water and began to scream. Her cries attracted the attention of a passing workman, and he arrived just in time to save the life of the elder girl, who had thrown herself into deep water and was sinking. Such cases were unheard of a few years back, and some of the German doctors believe these attempts at suicide are brought about by the long school hours, the over-pressure rendering young children nervous and highly excitable, even bringing on a tendency to insanity. The motives of these heart-rending acts seem to have been fear. But pressure put upon children to urge them on in their studies is just as enervating to them, if it consist in appeals to their vanity, or even to higher motives, than this. It is better for children to be ignorant and uneducated than

that the mind should have abnormal development at the expense of a pinched body and shattered nerves. Give the children plenty of leisure, plenty of play and fresh air, and never, on any account, force them at their books. If they need forcing they had better put their books in the fire and remain healthy dunces.—*The Living Church.*

An extract in this issue from a non-professional paper, shows that some others than the doctors are beginning to see the evils of the long school hours, and are saying a word to correct the error.

The rigid discipline in some schools prohibits children from going out more than once to attend to the calls of nature, or else requires them to remain after school to make up the time. This causes the child to restrain the desire to relieve himself, thus bringing on a condition of chronic constipation with a depraved state of health. It is better that the child lose a few minutes from his studies unnecessarily than that he should refuse to respond to the call for fear of having to remain after school, and so lose a portion of the time that the long hours at school do leave him.

The offering of prizes in schools for perfect lessons, or, rather, the offering of a special prize for the pupil showing the highest mark, is evidently wrong, for its only result seems to be to make those of naturally studious habits strain themselves to attain the prize, while the lazy and unambitious ones go on their same easy course.

Review of Diseases for June.

Chicken Cholera—Chatham, Cumberland, Johnston, Lincoln.

Cholera Infantum—Caswell, McDowell.

Cholera Morbus—Caldwell, Caswell, McDowell, Orange.

Diarrhœa—Bertie, Chowan, Craven, Cumberland, Duplin, Edgecombe, Jones, New Hanover, Orange, Rutherford, Sampson, Vance, Watauga, Wayne, Wilson.

Dysentery—Alamance, Buncombe, Caldwell, Caswell, Chatham, Chowan, Craven, Edgecombe, Mitchell, Montgomery, Nash, Orange, Rutherford, Sampson, Vance, Watauga, Wayne, Wilson.

Diphtheria—Yadkin.

Distemper in horses—Guilford.

Hog Cholera—Johnston.

Malarial Fever—Bertie, Caswell, Cherokee, Chowan, Craven, Davidson, Edgecombe, Gaston Greene, Guilford, Halifax, Johnston, Jones, Nash, Orange, Robeson, Sampson, Union, Wayne, Wilson.

Malarial Fever, Hemorrhagic—Columbus.

Malarial Fever, Pernicious—New Hanover, Randolph.

Measles—Alamance, Chatham, Durham, Granville, Greene, Halifax, Henderson, Iredell, Jackson, Jones, Lincoln, Macon, Madison, New Hanover, Orange, Randolph, Robeson, Rowan, Stanly.

Pneumonia—Randolph, Wayne.

Rubeola—Chatham, Wayne.

Scarlatina—Craven, Martin.

Scurvy—Wayne.

Typhoid Fever—Buncombe, Cabarrus, Caldwell, Caswell, Catawba, Chatham, Cleveland, Columbus, Franklin, Gaston, Greene, Guilford, Iredell, Johnston, Jones, Lincoln, Macon, Madison, Mitchell, Moore, Nash, New Hanover, Orange, Pender, Randolph, Robeson, Rowan, Rutherford, Sampson, Tyrrell, Vance, Warren, Yadkin.

Typho-malarial Fever—Chowan, Guilford, Halifax, Wayne.

Whooping-cough—Franklin, Lincoln, Martin, Montgomery, New Hanover, Randolph, Sampson, Watauga, Wilson.

Cigarette Smoking.

The smoking of cigarettes, especially by boys, is one of the crying evils of the day. The following note from the *Sanitarian* is to the point:

"COFFIN NAILS.—In some parts of the West cigarettes are quite commonly referred to as 'coffin nails.' This is by some considered unjust to coffin nails, which are, in their way, useful and even necessary articles."

Vital Statistics for June, 1890.

	White.	Col'd.	Total.
Aggregate population.....	55,270	45,012	100,282
Aggregate deaths.....	58	115	173
Temporary annual death rate per 1,000.....	12.6	25.7	20.1
Death under 5 years....			64
<i>Causes of Death.</i>			
Typhoid fever.....	2	7	9
Malarial fever.....	3	6	9
Diphtheria.....	1	0	1
Measles.....	1	0	1
Pneumonia.....	1	3	4
Consumption.....	3	17	20
Brain Diseases.....	4	3	7
Heart Diseases.....	2	5	7
Neurotic Diseases.....	2	1	3
Diarrhoeal Diseases....	13	19	32
All other Diseases.....	23	37	60
Accident.....	2	5	7
Still-born.....	1	12	13
Total.....	58	115	173

Summary of Reports from County Superintendents of Health for June.

Alamance.—Dr. G. W. Long, Graham. Dysentery and measles in some sections of the county followed so closely in the wake of the grippe that several valuable lives have been lost. The outlook is better now. Alamance has several growing villages and the subject of cemeteries is attracting attention. The board of health has already advised strongly against future interments in the towns. The sanitary condition of public buildings is good, except jail.

Alexander.—Dr. McD. Little, Taylorsville. No report.

Ashe.—No Board of Health.

Atterbury.—No Board of Health.

Anson.—No Board of Health.

Beaufort.—Dr. W. A. Blount, Washington. No report.

Bertie.—Dr. H. V. Dunstan, Windsor.

Gastro-intestinal and malarial troubles have prevailed in some sections. The sanitary condition of county and public buildings is good.

Bladen.—Dr. Newton Robinson, Elizabethtown. No epidemic has prevailed in any section of the county. There is less sickness in the county now than there has been in forty years. The sanitary condition of the county is very good; that of public buildings is not good.

Brunswick.—No Board of Health.

Buncombe.—Dr. H. B. Weaver, Asheville. Some dysentery and typhoid fever has been noted in different portions of the county. Very few deaths have resulted so far. About twenty cases of measles have been reported. I am making efforts for better sanitary regulations in the city. Public buildings are all in good condition.

Curke.—Dr. J. L. Laxton, Morganton. No report.

Cabarrus.—Dr. R. S. Young, Concord. The sanitary condition of the county is not as good as it should be. About twenty-one cases of typhoid fever have been reported. The sanitary condition of public buildings is good.

Caldwell.—Dr. A. A. Kent, Lenoir. About twelve cases of typhoid fever have occurred. Reports from different portions of the county show a smaller number of cases of cholera morbus and dysentery than usual. A few deaths have resulted from typhoid fever. The sanitary condition of poor house is good; that of the jail is rather bad.

Camden.—No Board of Health.

Carteret.—Dr. M. F. Arendell, Morehead City. The sanitary condition of the county is very good. The public buildings are old but very comfortable.

Castell.—Dr. R. H. Williamson, Vanceyville. Cholera infantum, cholera morbus, diarrhoea, dysentery, remittent, typhoid and typho-malarial fevers have prevailed in many portions of the county. The general sanitary condition of county is good; also that of public buildings.

Catawba.—Dr. J. M. McCorkle, Marion. Typhoid fever has prevailed in some portions

of the county. The sanitary condition of the county is good; that of jail and poor-house is good, except that they are too small.

Chatham.—Dr. L. A. Hanks, Pittsboro. Rubola has prevailed in several portions of the county. There has been an epidemic of chicken cholera. The sanitary condition of county is good as far as known. Six cases of typhoid fever reported. Measles and dysentery have prevailed rather extensively. Death-rate low. The sanitary condition of public buildings is very good.

Cherokee.—Dr. J. F. Abernathy, Murphy. The sanitary condition of the county is good; that of the town not so good. There have been ten or twelve cases of bilious remittent fever, some two or three of which assumed a typhoid type. Two cases of typhoid fever reported. There has been no effort made to improve the public buildings.

Chowan.—Dr. R. W. Winborne, Barnitz. Four cases of typho-malarial fever have occurred. Intermittent fever, diarrhoea and dysentery have prevailed in mild form in all parts of the county. There is a small increase in the number of cases of malarial fever over those occurring in June of last year. The public buildings are in good sanitary condition.

Clay.—No Board of Health.

Cleveland.—Dr. O. P. Gardner, Shelby. Typhoid fever has prevailed in the northern portions of the county. The sanitary condition of county and public buildings is good.

Columbus.—Dr. I. Jackson, Whiteville. One case each of typhoid and hæmorrhagic malarial fever have occurred. The sanitary condition of the county and public buildings is very good.

Craven.—Dr. Leinster Duffly, New Berne. Bowel troubles principally prevail throughout the county. Bronchitis, malarial fever, dysentery, diarrhoea and one case of scarlatina have been reported. County and public buildings are all in good condition.

Cumberland.—Dr. J. A. Hodges, Fayetteville. Sanitary condition of county is good, and but little sickness reported. Diarrhoea

seems to be the most prevalent disease. There has been an epidemic of chicken cholera. All the public buildings are in good sanitary condition, with no sickness among the inmates.

Currituck.—No Board of Health.

Dare.—No Board of Health.

Davidson.—Dr. R. L. Payne, Jr., Lexington. Malarial troubles have prevailed in various portions of the county. No change in the sanitary state of affairs since the last report. Sanitary condition of public buildings unchanged.

Davie.—No Board of Health.

Duplin.—Dr. James W. Blount, Kenansville. The general sanitary condition of county is good and there is very little sickness. Diarrhoea continues to prevail in some sections. The sanitary condition of public buildings is good. We have a new jail with sewerage, and it is a healthy locality.

Durham.—Dr. N. M. Johnson, Durham. An epidemic of measles has prevailed in this town. The county has been very healthy in June.

Edgecombe.—Dr. J. M. Baker, Tarboro. Diarrhoea, dysentery and malarial fevers have prevailed in some portions. The sanitary condition of county and public buildings is good.

Forsyth.—Dr. D. N. Dalton, Winston. No report.

Franklin.—Dr. E. S. Foster, Louisburg. There is little to report different from last month, except that there were reported five cases of typhoid fever and three or four of whooping-cough.

Gaston.—Dr. E. B. Holland, Dallas. Typhoid and malarial fevers have prevailed in all portions of the county. The sanitary condition of the county is only fair. Poor-house in splendid condition; jail not so good.

Gates.—No Board of Health.

Granville.—Dr. J. M. Hayes, Oxford. The sanitary condition of the county is excellent. All there is to report is one case of measles. The sanitary condition of public buildings is good.

Greene.—Dr. E. H. Sugg, Snow Hill. The general sanitary condition of county is good. Malarial and typhoid fevers have prevailed in different portions. Have heard of two cases of measles. The sanitary condition of public buildings is good, but I am trying to get the Commissioners to make some little improvement so they will stay so.

Guilford.—Dr. E. R. Michaux, Greensboro. Have had considerable sickness during the month, principally malarial troubles with an occasional case of typhoid and continued (typho-malarial) fevers. The latter have been quite prevalent. There seems to be more sickness in the county than in town. Still some bowel trouble but mild in character. There has been some distemper among horses. The sanitary condition of public buildings is good except jail, which is still crowded. I am informed that the jail will soon be rid of the prisoners from the adjoining counties, which will obviate this trouble.

Halifax.—Dr. A. B. Pierce, Weldon. Measles and malarial fevers have prevailed in several portions. Typho-malarial fever reported from some portions of the county. Sanitary condition of county good. That of the public buildings is as good as the surroundings will allow. Improvement is promised at the poor-house.

Harnett.—No Board of Health.

Haywood.—Dr. R. L. Allen, Waynesville. No report.

Henderson.—Dr. W. B. Reese, Hendersonville. General health of the county better than usual at this season. Weather warm and dry. Measles has prevailed in some portions. Sanitary condition of public buildings is very good.

Hertford.—No Board of Health.

Hyde.—No Board of Health.

Iredell.—Dr. M. W. Hill, Statesville. The measles is epidemic in some parts of the county. Typhoid fever is too common in some neighborhoods, and we have a greater number of cases of it in town than there has

been at one time in twenty years. There has been but little sickness in jail or poor-house.

Jackson.—Dr. J. M. Candler, Dillsboro. Measles has prevailed in mild form. The sanitary condition of the county is very good. The health of the people was never better. The sanitary condition of public buildings is very good.

Johnston.—Dr. L. L. Sasser, Smithfield. Four cases typhoid fever reported. Malaria, and bowel troubles have prevailed. There has been a slight epidemic of hog and chicken cholera. The sanitary condition of county and public buildings is very good.

Jones.—Dr. E. B. Woodley, Trenton. One case of typhoid fever reported; also a few cases measles, diarrhoea, and intermittent fever. The sanitary condition of poor-house is very good; but that of the jail is not as good as should be.

Lenoir.—No Board of Health.

Lincoln.—Dr. W. L. Crouse, Lincoln. Whooping-cough, measles and typhoid fever have prevailed in some parts. There is more sickness now than at any time during the year. Chicken cholera has been epidemic. The sanitary condition of public buildings is good.

Macon.—Dr. J. M. Lyle, Franklin. About forty cases of measles have occurred, and a few cases of typhoid fever, generally mild. The sanitary condition of county and public buildings is good.

Madison.—Dr. J. K. Hardwicke, Marshall. About forty cases of measles and seven of typhoid fever have been reported. The sanitary condition of the county and public buildings is good.

Martin.—Dr. W. H. Harrel, Williamston. Whooping-cough has prevailed in nearly all portions of this county. The sanitary condition of the county is remarkably good. Very little sickness and only of a mild type. Three cases of scarlatina reported from Hamilton, but it was mild and has not spread. The condition of public buildings at this season of the year leaves nothing to be desired.

McDowell.—Dr. J. H. Gilkey, Marion.

Cholera morbus and cholera infantum have prevailed to a considerable extent in some sections, but with these exceptions there has been but little sickness. General sanitary condition of the county and public buildings is good.

Mecklenburg.—No Board of Health.

Mitchell.—Dr. W. P. Upton, Bakersville. The sanitary condition of the county is good with the exception of one typhoid case at the jail, and a few cases of dysentery of a mild form.

Montgomery.—Dr. W. A. Simmons, Troy. Dysentery and whooping-cough have prevailed in some portions. The health of the county is very good. Improvements are not much needed in the public buildings.

Moore.—Dr. Gilbert McLeod, Carthage. The sanitary condition of the county is very good. There are very few cases of sickness for this season of the year. Some mild cases of typhoid fever reported from Sanford and Deep River townships. Our public buildings are in good sanitary condition.

Nash.—Dr. G. W. Lewis, Spring Hope. Typhoid fever has prevailed in different portions. In addition to this we have had a few cases of simple remittent and intermittent fevers. Have had comparatively little dysentery during June. Public buildings in good sanitary condition.

New Hanover.—Dr. F. W. Potter, Wilmington. Two cases each of measles and typhoid fever, and one each of whooping-cough and pernicious malarial fever have been reported. Diarrhoeal troubles have prevailed in the suburban portions. The sanitary condition of the county is good. Jail is in good sanitary condition. House of correction is a temporary building. The poor-house is being rapidly pushed to completion. The paupers are now in an old building conveniently near to the superintendent to be cared for.

Northampton.—Dr. H. W. Lewis, Jackson. No report.

Onslow.—No Board of Health.

Orange.—Dr. D. C. Parris, Hillsboro. Diarrhoea and dysentery have prevailed in

nearly all portions. The sanitary condition of county is not very good. Much rain, followed by intensely hot and dry weather, has been the cause of much dysenteric and other sickness. Remittent and typhoid fevers, cholera morbus and measles have prevailed. Sanitary condition of public buildings good, except jail.

Pamlico.—No Board of Health

Pasquotank.—No Board of Health.

Pender.—Dr. S. S. Satchwell, Burgaw. Five cases of typhoid fever reported. The sanitary condition of the public buildings is pretty good. Additional drainage of the jail and court-house square is needed. June has been unusually hot.

Perquimans.—No Board of Health

Person.—No Board of Health.

Pitt.—Dr. F. W. Brown, Greenville. No report.

Polk.—No Board of Health.

Randolph.—Dr. J. W. Long, Randleman. Typhoid fever has prevailed in most of the little towns of the county. Whooping-cough has prevailed extensively in one section. Twenty-five or thirty cases of measles and one of pernicious malarial fever have been reported. Have seen a few cases of croupous pneumonia. The condition of the jail premises is not good, the yard being overgrown with grass and weeds, and several wet places, or puddles, are to be found around the doors and windows. There has been no sickness among the prisoners except a case of diarrhoea, but two cases of typhoid fever have occurred in the jailer's family, who live in the lower story of the jail. Our county seat, Asheboro, is having a few cases of typhoid fever, and the people are somewhat aroused on the subject. I made a personal tour of the town, in company with Dr. Henly, one of the county commissioners, and we found a number of nuisances, of which we notified the owners, who promised to abate them speedily. Asheboro should not be a sickly place, for it is high and dry, and if kept clean would be almost free from sickness. I have abated a large number of nuisances, and believe the people are being educated to appreciate the necessity of sanitation.

Richmond.—Dr. W. W. Covington, Rockingham. No report.

Robeson.—Dr. R. F. Lewis, Lumberton. Some measles and typhoid fever have occurred. Bowel affections and malarial fever have prevailed in some sections. The sanitary condition of county and public buildings is fair.

Rockingham.—No Board of Health.

Rowan.—Dr. J. J. Summerell, Salisbury. There has been, during the month, a good deal of sickness in some portions of the county. Typhoid fever, in a mild form, is present in many neighborhoods. Dr. Ramsay reports six cases, and Dr. Garther one. Both report measles. Rumor reports the prevalence of the disease in other portions of the county. I hear also of some cases of typhoid in Salisbury. In my own practice have had four cases, with one death—all in the neighborhood of a colored school in the western suburbs. There was a very moderate rainfall during the month. The sanitary condition of public buildings is good, but the court-house and jail need repairing and modernizing. The county is amply able to have these improvements, and I hope, ere long, our commissioners will inaugurate the desired work.

Rutherford.—Dr. E. B. Harris, Rutherfordton. Some dysentery and three cases of typhoid fever have occurred. The typhoid was brought in from other counties. The public buildings are in good condition.

Sampson.—Dr. J. A. Stevens, Clinton. It has been a very dry June, with many cases of malarial and a few of typhoid fever, dysentery, diarrhoea and whooping-cough as the most prevalent diseases. The sanitary condition of the poor-house is very good; that of the jail is as good as the old wooden structure and present location will admit.

Stanly.—Dr. R. L. Davis, Bryson City. The general sanitary condition of the county is fairly good. Ten cases of measles have been reported. Public buildings are in fairly good condition.

Stokes.—No Board of Health.

Surry.—No Board of Health.

Swain.—Dr. R. L. Davis, Bryson City. No report.

Transylvania.—Dr. D. H. Farmer, Brevard. No report.

Tyrrell.—Dr. Ab. Alexander, Columbia. There have occurred four cases of typhoid fever; no malarial fevers. Sanitary condition of the jail is very bad.

Union.—Dr. W. C. Ramsay, Monroe. Diarrhoea and remittent fevers have prevailed in some portions of the county. The sanitary condition of the county is fair. The poor-house is in good sanitary condition, the jail bad.

Vance.—Dr. A. Cheatham, Henderson. The general health of the county is better than it has been for some years at this season. Some few cases of typhoid fever and dysentery. Sanitary condition of public buildings good.

Wake.—Dr. Jas. McKee, Raleigh. The general sanitary condition of the city and county is very good. Also that of public buildings.

Warren.—Dr. P. J. Macon, Warrenton. Fevers of different classes have prevailed in all portions. Several cases of typhoid fever have occurred. More fevers than for years; attributable to the mild winter, extreme solar heat and heavy, moist atmosphere—respond promptly to antiseptic treatment. The sanitary condition of public buildings is very good.

Washington.—No Board of Health.

Watauga.—Dr. W. B. Council, Boone. Twenty cases of whooping-cough and ten of

hæmorrhagic malarial fever reported. Flux has prevailed in the western part of the county. Sanitary condition of public buildings good.

Wayne.—Dr. W. H. Cobb, Jr., Goldsboro. Rubeola and rōtheln have prevailed in some parts of the county and town. Cases of typho-malarial fever, remittent and intermittent fevers have been reported. Dysentery and diarrhoea have been prevalent. One case each of pneumonia and scurvy have been reported. The sanitary condition of public buildings is good.

Wilkes.—No Board of Health.

Wilson.—Dr. R. W. King, Wilson. The general sanitary condition of the county is good. No prevailing diseases of a dangerous character. Some malaria and dysentery, diarrhoea and whooping-cough have occurred. All cases are easily managed; not much mortality. Sanitary condition of public buildings as good as could be desired. That of the jail is excellent. Some improvements have been made at the poor-house.

Yadkin.—Dr. T. R. Harding, Yadkinville. Diphtheria and typhoid fever have prevailed in nearly all portions of the county. The typhoid is more general than the diphtheria. The sanitary condition of the county is bad, also that of the public buildings.

Yancey.—Dr. J. L. Ray, Burnsville. The sanitary condition of the county is very good for the season. No epidemic of any consequence has occurred. The sanitary condition of public buildings is moderately good.

Condition of Jails and Poor-houses by Counties for June, 1890.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....	2	1,000	0	0	44a	600	0	0
Alexander.....								
Alleghany.....					2			
Anson.....								
Ashe.....								
Beaufort.....								
Bertie.....	1				14			
Bladen.....	1				7			
Brunswick.....								
Buncombe.....	20	800		10	30	600		15
Burke.....								
Cabarrus.....	12	1,101	4	1	19	1,220	6	7
Caldwell.....	4	720	2	4	6	1,260	0	2
Camden.....								
Carteret.....	3	500	0	1	0			
Caswell.....	5	500			23	1,000	9	3
Catawba.....	8	750	3	5	30	740	11	9
Chatham.....	3	1,500	1	1	21	1,750	10	10
Cherokee.....					2	1,250		
Chowan.....	2	1,500	0	1	10	2,621	0	2
Clay.....								
Cleveland.....	13	684		1	25	997		6
Columbus.....	6	2,772		0	10	3,888		0
Craven.....	7	1,600	2	3	16	1,200	5	1
Cumberland.....	6	800	5	4	12	1,000	9	8
Currituck.....								
Dare.....								
Davidson.....	2	4,470	0	0	21	721	0	4
Davie.....								
Duplin.....	0				22	1,000		
Durham.....	28b	1,000		9	16	1,000		2
Edgecombe.....	7	2,370		3	29	2,730		2
Forsyth.....								

a. Includes 10 in house of correction. b. Includes 23 in house of correction.

Condition of Jails and Poor-houses by Counties for June, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Franklin.....	2				19			
Gaston.....	5	1,521	0	3	13	2,580	0	3
Gates.....								
Graham.....								
Granville.....	10	2,500			20	900		
Greene.....	0				10	1,000		1
Guilford.....	29	430			30	1,333		
Halifax.....	5				57			4
Harnett.....								
Haywood.....								
Henderson.....	5				8			
Hertford.....								
Hyde.....								
Iredell.....	7	1,603			19	583		
Jackson.....	7	150	4	3	4	1,000	2	2
Johnston.....	2	1,000	1	1	16	1,000	6	4
Jones.....	2	2,760			5	1,420		
Lenoir.....								
Lincoln.....	1	7,714	0	0	27	340	0	5
McDowell.....	4	600	2	3	9	550	1	1
Macon.....	4	1,125	1	1				
Madison.....	2	1,484	0	0	6	2,100	0	0
Martin.....	7	1,000	2	2	12	700	2	3
Mecklenburg.....								
Mitchell.....								
Montgomery.....	0				12	900		
Moore.....	2	1,800	0	0	12	698	2	4
Nash.....					35		7	8
New Hanover.....	11	500	6	8	21 ^a	550	14	8
Northampton.....								
Onslow.....								
Orange.....	4	512	0	0	31	2,048	12	12
Pamlico.....								

^a. Includes 3 in house of correction.

Condition of Jails and Poor-houses by Counties for June, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	2		1	2	3		2	2
Perquimans.....								
Person.....								
Pitt.....								
Polk.....								
Randolph.....	0	1,126	2	2	27	580	10	8
Richmond.....								
Robeson.....	8	864	0	0	15	960	0	0
Rockingham.....								
Rowan.....	19	376	5	5	15	2,400	6	1
Rutherford.....	2	2,736	1	2	26	996	6	4
Sampson.....	2				23			
Sandy.....								
Stokes.....								
Surry.....								
Swain.....	0				0			
Transylvania.....								
Tyrrell.....	2	1,100			1	1,100		
Union.....	5	1,500		1	23	2,000		2
Vance.....	6	1,686	1	3	16			
Wake.....	14	1,933						
Warren.....					18	1,700		2
Washington.....								
Watauga.....	5				7			
Wayne.....	8	1,500	1	3	11	1,238	2	4
Wilkes.....								
Wilson.....	3				38			
Yadkin.....	2				24			7
Yancey.....	2	1,728	0	2				

Meteorological Report for June, 1896.

STATIONS.	TEMPERATURE.										NO. DAYS.				Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	
Asheville.....																
Chat'oga, Tenn.	78.9	95.0	28	62.0	8	33.0	.....	26.0	28	12.0	10	7	19	4	14	3.12 W.
Charleston, S.C.	82.0	98.0	27	69.0	1	29.0	.....	23.0	.....	9.0	.....	1	10	19	8	1.32 S. W.
Charlotte.....	80.2	98.0	22	64.0	13	34.0	.....	28.0	15	14.0	8	23	7	.....	6	0.52 W.
Columbia, S. C.	81.0	99.0	(a)	65.0	3	34.0	.....	27.0	.....	14.0	.....	12	14	4	8	1.13 S. W.
Hatteras	77.0	90.0	25	67.0	8	23.0	.....	15.0	15	6.0	6	16	11	3	10	4.04 S. W.
Kitty Hawk.....	78.7	96.5	22	63.0	16	33.5	.....	23.0	15	9.0	29	1	24	5	10	1.46 S. W.
Knoxville, Tenn	78.0	93.0	30	58.0	8	35.0	.....	27.0	9	12.0	7	7	21	2	11	2.89 S. W.
Lynchburg, Va..	76.6	95.0	22	52.0	9	43.0	.....	30.0	9	14.0	7	3	21	6	15	1.63 N. W.
Norfolk, Va.....	77.1	95.0	22	58.0	9	37.0	17.8	24.0	28	7.0	8	14	11	5	7	2.79 S. W.
Raleigh	78.6	97.0	29	58.0	9	39.0	21.2	28.0	28	13.0	8	7	19	4	14	2.37 S. W.
Southport.....	79.4	92.0	27	63.2	2	26.8	.....	18.6	24	6.4	11	6	26	4	10	2.23 S. W.
Wake Forest.....																
Wilmington	80.0	100.0	27	63.0	2	37.0	.....	26.0	27	11.0	8	4	20	6	12	3.26 S. W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Asheville, N. C.						
Chattanooga, Tenn	30.067	30.295	9	29.996	30	.389
Charleston, S. C.	30.058	30.337	7	29.871	30	.466
Charlotte, N. C.	30.060	30.400	9	29.860	12	.540
Columbia, S. C.						
Hatteras, N. C.	30.040	30.360	9	29.840	25	.520
Kitty Hawk, N. C.						
Knoxville, Tenn	30.082	30.326	9	29.904	30	.422
Lynchburg, Va	30.028	30.395	9	29.780	12	.615
Norfolk, Va	30.023	30.394	9	29.828	25	.566
Raleigh, N. C.	30.032	30.380	9	29.830	29	.550
Southport, N. C.						
Wake Forest, N. C.						
Wilmington, N. C.	30.050	30.370	9	29.830	29	.540

(a) 15th and 29th.

Mortuary Report for June, 1890.

TOWNS AND REPORTERS.	Races.	Population.		Temporary Annual death Rate per 1,000.	Tot.	Typhoid Fever.	Scarlet Fever.	Malarial Fever.	Diphtheria.	Whooping-Cough.	Measles.	Pneumonia.	Consumption.	Brain Diseases.	Heart Diseases.	Neurotic Diseases.	Laryngeal Diseases.	All other Diseases.	Accidents & Violence.	Suicide.	Still-born.	Total	
		By Races	Total.																			By Races	By Races.	By Towns	Deaths under 5 yrs.
Asheville.....	White	9,000	13,000	5.4	19.1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	11	4
Dr. H. B. Weaver.....	Color'd	4,000		21.0																			
Charlotte.....	White	6,500	11,000	16.0	21.7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	20	4
Dr. J. Scarr.....	Color'd	5,000		28.8																			
Durham.....	White	4,000	7,000	6.0	8.6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12	3	3
Dr. N. M. Johnson.....	Color'd	3,000		12.0																			
Fayetteville.....	White	2,800	5,000	12.1	14.4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	6	...
Dr. J. A. Hodges.....	Color'd	2,200		16.4																			
Goldsboro.....	White	2,500	5,000	9.6	9.6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	...
Dr. W. H. Cobb, Jr.....	Color'd	2,500		9.6																			
Henderson.....	White	2,112	4,112	9.0	5.8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	2	...
Dr. A. Cheatham.....	Color'd	2,000		12.0																			
Newbern.....	White	3,000	7,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Fulcher, City Clk.....	Color'd	4,000		.....																		
Oxford.....	White	1,600	3,300	6.9	3.6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	1	...
Dr. J. M. Hays.....	Color'd	1,700		7.9																			
Raleigh.....	White	8,000	15,000	12.0	28.4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	25	33	14
Dr. Jas. McKee.....	Color'd	7,000		42.9																			
Salisbury.....	White	2,750	4,500	26.2	37.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	14	3
Dr. I. J. Summerell.....	Color'd	1,750		55.0																			
Tarboro.....	White	1,258	2,572	28.6	30.4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	6	1
Dr. J. M. Baker.....	Color'd	1,312		32.4																			
Washington.....	White	2,400	4,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. S. T. Nicholson.....	Color'd	1,600		.....																		
Wilmington.....	White	9,000	23,000	20.0	31.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	60	5
Dr. F. W. Potter.....	Color'd	14,000		38.6																			
Greensboro.....	White	4,000	6,000	9.0	8.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	4	2
Dr. R. W. Tate.....	Color'd	2,000		6.0																			
Statesville.....	White	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. M. W. Hill.....	Color'd	.....		.....																
Lincolnton.....	White	600	1,000	60.0	48.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	4
Dr. W. L. Crouse.....	Color'd	400		30.0																			
Hillsboro.....	White	600	1,000	20.0	12.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
Dr. D. C. Parrish.....	Color'd	400		0.0																			
Monroe.....	White	1,000	2,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. W. C. Ramsey.....	Color'd	300		.....																		
Warrenton.....	White	1,050	2,000	0.0	12.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	2	...
Dr. P. J. Macon.....	Color'd	950		25.3																			

*Population not known, therefore death-rate cannot be computed.





BULLETIN

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AUGUST, 1890.

NO. 5.

Private Construction and Maintenance of Sewers.

The action of the city authorities of Shreveport, La., in making a contract with a private company for the construction and maintenance, not only of a system of water-works, but also a system of sewers, has led the *American Architect and Building News* to say some sensible things regarding the private construction and maintenance of sewers. As a business proposition this seems sound, and as a means of needed sanitation this plan would undoubtedly meet with general approval. Taking the Shreveport plans as a basis the private construction of water-works and sewers is cheaper to the citizens than the unsanitary method of constructing and maintaining cess-pools, and it would furnish sewers to towns that are unable to stand the cost of construction. The *News* says.

"In a very large number of our towns, even where the water-works are in the hands of the public authority, we believe that sewers might

be built and maintained by private enterprise, where the cost is beyond the reach of the city finances, to the saving of hundreds of precious lives, and the infinite benefit of the citizens. The two principal difficulties in the way are the necessity, in many cases, of seeking an out-fall for the main sewers through the territory of a neighboring, and perhaps unfriendly town, and the legal quibble about the right of a town to give any person or corporation a monopoly in its streets. If these could be overcome, which could most readily be done by an act of the Legislature, explicitly empowering towns to acquire rights of way through other communities, and to convey franchise for sewerage systems. We have long been convinced that the money would be raised without difficulty, or rather, that capitalists, large and small, would rush to avail themselves of every opportunity for an investment so solid, so near at hand, and so surely profitable. Just at present, the most favorable place we know of for such enterprises is in the district served by the Metropolitan system of Drainage, the construc-

tion of which has just been begun in Eastern Massachusetts. This Metropolitan system provides an outfall, and one main sewer, for each of the towns in the Charles and Mystic river valleys, but nothing more, and, in order that the sewer may be of the slightest use to the towns through which it passes, they must build their own drainage net-work to connect with it. For most of the towns, this is a financial impossibility, since, even if the money could be borrowed, the rate of taxation, which is already very high in the towns about Boston, would have to be raised so much, to pay the interest on the borrowed funds, as to drive the well-to-do inhabitants away, leaving the town poorer than ever. In this dilemma, the intervention of private capital would not only be a great relief to the towns, but would enable them to procure at once the advantages which the Metropolitan system was intended to afford them; and under an arrangement similar to that at Shreveport, enough capital could be raised in Boston in a few days, as we think, to carry out complete drainage works in the closely settled portions of the whole Metropolitan district. Most of the inhabitants of the district are tolerably well-to-do, they all have the use of a public water supply, and nearly all of them have to pay from six to twenty dollars a year for having their cesspools emptied. We know of an instance in the district where a householder had to pay the public cesspool cleaner twelve dollars for pumping out his cesspool, and had to have it done every two weeks to prevent its contents from overflowing back into his cellar. This, which was at the rate of more than three hundred dollars a year, for a house of quite moderate size, was undoubtedly an extreme case, but the opportunity for securing sewer drainage at a cost of two dollars a year per house, which is about the Shreveport average, would be hailed with delight throughout the district; yet, at that rate, the Shreveport Sewerage Company receives an excellent return upon its investment."

Review of Diseases for July.

Chicken Cholera—Nash.

Hog Cholera—Henderson, Johnston.

Cholera Infantum—Alamance, McDowell.

Diarrhea—Jones, Mitchell, New Hanover, Orange, Union, Vance.

Diphtheria—Craven, Cumberland, New Hanover, Randolph, Robeson, Rowan, Yadkin.

Dysentery—Alamance, Greene, Henderson, Orange, Randolph, Vance, Wayne.

Distemper in horses—Guilford, Henderson.

Malarial Fever—Alamance, Buncombe, Caswell, Craven, Durham, Edgecombe, Franklin, Granville, Greene, Guilford, Halifax, Johnston, Jones, Nash, Randolph, Richmond, Sampson, Union, Warren, Wayne.

Malarial Fever, Hemorrhagic—New Hanover, Randolph.

Malarial Fever, Pernicious—Orange, Randolph.

Measles—Buncombe, Chatham, Cherokee, Greene, Henderson, Lincoln, Randolph, Robeson, Rowan.

Milk-sickness—Cherokee.

Mumps—Sampson.

Scarlatina—Caldwell, Craven, Macon, Robeson, Wake.

Typhoid Fever—Alamance, Buncombe, Caldwell, Catawba, Chatham, Cherokee, Cleveland, Columbus, Craven, Edgecombe, Franklin, Granville, Greene, Henderson, Iredell, Johnston, Lincoln, Macon, Martin, McDowell, Mitchell, Montgomery, Moore, Nash, New Hanover, Northampton, Orange, Randolph, Richmond, Rowan, Rutherford, Sampson, Tyrrell, Wake, Warren, Wayne, Wilson, Watauga, Yadkin, Yancey.

Typho-malarial Fever—Davidson, Gaston, Guilford, Halifax, Wayne.

Whooping-cough—Martin, Mitchell, Robeson, Rowan, Sampson, Wilson, Watauga.

Vital Statistics for July, 1890—Twelve Towns.

	White.	Col'd.	Total.
Aggregate population.....	41,764	33,222	79 986
Aggregate deaths.....	53	82	135
Temporary annual death rate per 1,000.....	15.2	25.7	20.3
Deaths under 5 years..			51
<i>Causes of Death.</i>			
Typhoid fever.....	4	10	14
Malarial fever.....	3	1	4
Diphtheria.....	1	0	1
Measles.....	1	0	1
Pneumonia.....	0	2	2
Consumption.....	6	13	19
Brain Diseases.....	1	5	6
Heart Diseases.....	5	5	10
Neurotic Diseases.....	2	1	3
Diarrheal Diseases....	10	16	26
All other Diseases.....	12	24	36
Accident.....	4	2	6
Suicide.....	1	0	1
Still-born.....	3	3	6
Total.....	53	82	135

Summary of Reports from County Superintendents of Health for the Month of July, 1890.

Alamance—Dr. G. W. Long, Graham. Sanitary condition of public buildings all good except jail. Prevailing diseases have been malarial fever, cholera infantum, an occasional case of dysentery and a few cases of typhoid fever.

Alexander—No Board of Health.

Ashe—No Board of Health.

Alleghany—No Board of Health.

Anson—No Board of Health.

Beaufort—Dr. W. A. Blount, Washington. No report.

Bertie—Dr. H. V. Dunstan, Windsor. The sanitary condition of county and public buildings is good.

Bladen—Dr. Newton Robinson, Elizabethtown. The sanitary condition of county is good. There have been no prevailing diseases

of any consequence. Sanitary condition of public buildings also good.

Brunswick—No Board of Health.

Buncombe—Dr. H. B. Weaver, Asheville. Typhoid fever has prevailed in some parts of the county with slight mortality. There has been a good deal of simple continued fever, which some physicians have been wont to pronounce typhoid. Twenty cases of measles and twenty-five of typhoid have been reported. The jail has been thoroughly overhauled and new sewer connections with improved traps have been made. The poor-house has been renovated—both places very healthy.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. S. Young, Concord. No report.

Caldwell—Dr. A. A. Kent, Lenoir. Typhoid fever has prevailed in portions of the county, twenty cases being reported, with one of scarlatina. There is more typhoid than usual, and with this exception the sanitary condition of county is good. Condition of the poor-house is good, that of the jail bad. Two cases of sickness among the prisoners, who had to be brought out in the day time for fresh air.

Camden—No Board of Health.

Carteret—Dr. M. F. Arendell, Morehead City. I never knew the county healthier or its sanitary condition better. With good health and good crops we ought to be thankful. Public buildings are old, but comfortable and clean.

Caswell—Dr. R. H. Williamson, Yanceyville. A few cases of remittent fever have occurred in several portions. The sanitary condition of county and public buildings is good.

Catawba—Dr. J. M. McCorkle, Newton. Typhoid fever has prevailed in some portions. Sanitary condition of county is good—that of the public buildings is as good as could be expected.

Chatham—Dr. L. A. Hanks, Pittsboro. Ten cases of measles and fifteen of typhoid fever have been reported. Measles have prevailed

in several portions. Sanitary condition of county is good as far as known. The sanitary condition of public buildings is very good, with the exception of a few houses at the alms-house, and these are being repaired.

Cherokee—Dr. J. F. Abernathy, Murphy. The sanitary condition of the town is not good. Fever has prevailed throughout the town and suburbs for the last month. The sanitary condition of county generally is excellent. There have been reported twenty-two cases of measles and twenty-seven of typhoid fever. There have five deaths occurred from typhoid. Some localities have milk-sickness.

Chowan—Dr. R. W. Winborne, Barnitz. No report.

Clay—No Board of Health.

Cleveland—Dr. O. P. Gardner, Shelby. Typhoid fever has prevailed in all portions of the county, twenty-five cases having been reported. The sanitary condition of the county is better than usual at this season, but it is far from good. The wells are shallow and subject to overflow in many places. Privies are above ground, with no drainage except through adjacent soil and town alleys. The sanitary condition of public buildings is good.

Columbus—Dr. Isaac Jackson, Whiteville. The sanitary condition of county is good. A few cases of typhoid fever have occurred. Sanitary condition of public buildings is good—have just furnished county hospital.

Craven—Dr. Leinster Duffy, Newbern. Less sickness has prevailed throughout the county this season than for several years past, although malarial and typhoid fevers have occurred. Three cases of scarlatina and one of diphtheria have been reported. Sanitary condition of county and public buildings is good.

Cumberland—Dr. T. D. Haigh, acting, Fayetteville. Sanitary condition remarkably good. One case of diphtheria has occurred. Sanitary condition of public buildings is good—ample air, and food of good quality.

Currituck—No board of Health.

Dare—No Board of Health.

Davidson—Dr. R. L. Payne, Jr., Lexington.

General sanitary condition of the county is good. In one locality during June and early in July there were several cases of typho-malarial fever. In the same locality I have seen within a few days eleven cases of jaundice, most of them without demonstrable lesion. Is not this strange? Sanitary condition of public buildings is good.

Davie—No Board of Health.

Duplin—Dr. Jas. W. Blount, Kenansville. The sanitary condition of county and public buildings is good. There has been very little sickness reported.

Durham—Dr. N. M. Johnson, Durham. The health of the town and county for the past month has been very good. A very few cases of malarial fever of a very mild type have occurred in some parts. Sanitary condition of public buildings is good.

Edgecombe—Dr. J. M. Baker, Tarboro. Typhoid and malarial fevers have prevailed. The sanitary condition of the county is good.

Forsyth—Dr. D. N. Dalton, Winston. A few cases of whooping-cough and typhoid fever have occurred. The sanitary condition of county and public buildings is good.

Franklin—Dr. E. S. Foster, Louisburg. Continued fever of a mild type has prevailed in and around town. Four cases of typhoid fever have been reported. Otherwise the sanitary condition of the county is good. That of the public buildings is also good.

Gaston—Dr. E. B. Holland, Dallas. Typho-malarial fevers have prevailed in all portions of the county. The sanitary condition in some localities is not good. That of the public buildings is good.

Graham—No Board of Health.

Granville—Dr. J. M. Hays, Oxford. The sanitary condition of county is good. We are having quite a number of cases of continued malarial fever (not typho-malarial), and a few cases of typhoid have been reported. Upon the whole there has been less sickness than usual. Public buildings all in good sanitary condition.

Greene—Dr. E. H. Sugg, Snow Hill.

Typhoid and malarial fevers have prevailed in different portions of this county; also a few cases of dysentery. The general sanitary condition of the county is tolerably good. Three cases of measles have been reported. Sanitary condition of public buildings is good—jail is to be scalded and whitewashed on the inside.

Guilford—Dr. E. R. Michaux, Greensboro. We are still having considerable sickness, but principally malarial troubles. Have had remarkably few cases of typhoid fever. Some of the malarial fever has been quite severe, the temperatures running quite high and hard to control. There has been some distemper among horses. Sanitary condition of public buildings is good. Our jail is very much crowded, as before mentioned, due to the presence of prisoners from other counties.

Halifax—Dr. A. B. Pierce, Weldon. Malarial and typho-malarial fevers have prevailed in several portions of the county. General sanitary condition of the county is good. Fevers of a rather low type have prevailed, especially among the colored population. Sanitary condition of public buildings is as good as circumstances will admit. No improvements as yet.

Harnett—No Board of Health.

Haywood—Dr. R. L. Allen, Waynesville. No report.

Henderson—Dr. W. B. Reese, Hendersonville. Fifteen cases of measles and one of typhoid fever have been reported. The typhoid case came from the south. Distemper has been epidemic among cattle and cholera among hogs. Dysentery has prevailed generally. The sanitary condition of the county is good as ever before—some continued fever, lasting about a week. The sanitary condition of public buildings is good, except that the jail is rather unfavorably located, yet seems as free from sickness as any place in town.

Hertford—No Board of Health.

Hyde—No Board of Health.

Iredell—Dr. M. W. Hill, Statesville. There has been an unusually large number of cases of typhoid fever in portions of the county, twenty-

eight cases having been reported. Preparations are being made to improve the buildings at the poor-house. Nothing in that direction is being done at the jail or court-house.

Jackson—Dr. J. M. Candler, Dillsboro. The sanitary condition of the county and public buildings is good.

Johnston—Dr. L. L. Sasser, Smithfield. Malarial troubles have prevailed and six cases of typhoid fever reported. A slight epidemic of hog-cholera. The sanitary condition of the county and public buildings is good.

Jones—Dr. C. B. Woodley, Trenton. A few cases of remittent fever and diarrhoea have occurred.

Lenoir—No Board of Health.

Lincoln—Dr. W. L. Crouse, Lincolnton. Measles, whooping-cough and a few cases of typhoid fever have occurred in different portions of the county. There have been but few cases of any of them and they have been of a mild type. Our jail and poor-house are both well kept, but there is much need of improvement at the poor-house to care for the sick. Our keeper is paid too little to justify him in doing it.

Macon—Dr. J. M. Lyle, Franklin. There have been reported two cases of scarlatina and eleven of typhoid fever. The sanitary condition of the public buildings is good.

Madison—Dr. J. K. Hardwick, Marshall. There has prevailed no disease of any importance. The sanitary condition of the public buildings is good.

Martin—Dr. W. H. Harrell, Williamston. About fifty cases of whooping-cough and one of typhoid fever have been reported. The sanitary condition of the county is good, also that of the public buildings.

McDowell—Dr. J. H. Gilkey, Marion. Typhoid fever and cholera infantum have prevailed in some portions. There has been no other sickness of consequence. The sanitary condition of county and public buildings is good.

Mecklenburg—No Board of Health.

Mitchell—Dr. W. P. Upton, Bakersville. Typhoid fever has prevailed in an epidemic

form in some parts of the county. There has been some whooping-cough. Summer diarrhoea is quite common among infants. The sanitary condition of the county is not good at present; that of the jail is not good, but efforts are being made to build a new one. Poor-house is in good condition.

Montgomery—Dr. W. A. Simmons, Troy. There have been two cases of typhoid fever reported. The health of our people is good. Hear occasionally of pains in the limbs from overwork and a few cases of bowel complaint from over eating.

Moore—Dr. Gilbert McLeod, Carthage. Nothing special has prevailed. Four cases of typhoid fever have been reported. The sanitary condition of the county and public buildings is good.

Nash—Dr. G. W. Lewis, Spring Hope. Typhoid fever has prevailed in all portions of the county. There has been an epidemic of chicken-cholera. There have been also some remittent fever, but with these exceptions the sanitary condition of the county has been good. Jail and poor-house are in good sanitary condition and no improvements are needed at present.

New Hanover—Dr. F. W. Potter, Wilmington. Diarrhoeal diseases have prevailed in the suburban portions. The sanitary condition of the county is good. Three cases of diphtheria, four of typhoid fever and one of hæmorrhagic malarial fever have occurred. The public buildings are in good sanitary condition. The new poor-house will soon be ready to receive the poor.

Northampton—Dr. H. W. Lewis, Jackson. Fever of a mixed type has prevailed in all portions of the county. Sixteen cases of typhoid fever have been reported. The sanitary condition of county is very good for this season of the year; that of the public buildings is good.

Onslow—No Board of Health.

Orange—Dr. D. C. Parris, Hillsboro. Dysentery and diarrhoeal diseases have prevailed in all portions of the county. The sanitary condition of county is fairly good. Four cases of typhoid fever and two of pernicious malarial

have occurred. Sanitary condition of public buildings, except jail, is good. Many of the public school houses are badly arranged for comfort and hygiene, but their sanitary condition is good.

Pamlico—No Board of Health.

Pasquotank—No Board of Health.

Pender—Dr. S. S. Satchwell. There has been an improvement in the sanitary condition of the county. The people are giving an increasing attention to sanitary science and the laws of health. Good drinking water was never so highly valued. The work of sanitation is directed with encouraging results against the causes of malarial and typhoid fever. Drainage is more generally practiced by the farmers.

Perquimans—No Board of Health.

Person—No Board of Health.

Pitt—Dr. F. W. Brown, Greenville. No report.

Polk—No Board of Health.

Randolph—Dr. J. W. Long, Randleman. Typhoid and possibly malarial fevers have prevailed along the river and in the little factory towns. The only case of diphtheria I know of resulted in membranous croup and ended fatally. This case rather "knocks out" my (?) theory that diphtheria never occurs sporadically—that was certainly an unmistakable case and so pronounced by other physicians. The sanitary condition of public buildings is the best I have ever seen it. I constantly agitate the matter and feel gratified at the result. I have had fifteen cases of typhoid fever. Dr. Fox reports sixteen cases of pernicious malarial fever, one of hæmorrhagic, four of typhoid, two of measles and four of diphtheria with fever and dysentery as the prevailing diseases in his practice. He reports the sanitary condition as *bad! bad!! bad!!! bad!!!!*

Richmond—Dr. J. M. Covington, Rockingham. The general health of the county has been better the past month than it has for several years. The sanitary condition of public buildings is pretty good except jail. Several cases of typhoid fever of mild type have been reported. Gastro-intestinal and malarial

troubles have prevailed in some parts of the county.

Robeson—Dr. R. F. Lewis, Lumberton. Some measles, whooping-cough, scarlatina and diphtheria, have been reported. Sanitary condition of the county fair; that of public buildings is fair.

Rockingham—No Board of Health.

Rowan—Dr. J. J. Summerell, Salisbury. So far as reported the county is in pretty good sanitary condition. Of course it might be made better. No effort, either private or public, is being made to render the health better. There have been reported from three doctors, four cases of measles, nine of whooping-cough, three of diphtheria and six of typhoid fever. The poor-houses are clean and comfortable—little sickness—contentment among the inmates. The jail is overcrowded. You see, by the report that each prisoner has only 350 cubic feet of space; but the weather is warm and the windows are kept open to renew the air. Though so many, the health is good.

Rutherford—Dr. E. B. Harris, Rutherfordton. Our county is in the best condition—very little sickness of any kind—the least known at the same season for many years. One case of typhoid fever.

Sampson—Dr. J. A. Stevens, Clinton. I have to report a few cases each of mumps and whooping-cough. I hear of a good many cases of typhoid fever and many of malarial. Have had five cases of typhoid in my own practice. The other doctors do not report. Sanitary condition of poor-house very good. With the jail there is no change from last month.

Stanly—No Board of Health.

Stokes—Board of Health just organized.

Surry—No Board of Health.

Swain—No Board of Health.

Transylvania—Dr. D. H. Farmer, Brevard. No report.

Tyrrell—Dr. Ab. Alexander, Columbia. Typhoid fever has prevailed in some portions, eleven cases having been reported. The general sanitary condition of the county is good. The jail is kept in bad order.

Union—Dr. W. C. Ramsay, Monroe. Malarial fever and diarrhoea have prevailed to a limited extent. Health of the county is generally good. Poor-house in good sanitary condition; jail bad.

Vance—Dr. A. Cheatham, Henderson. There have been some fever and bowel troubles. The health of the county has been very good for this time of year. The sanitary condition of the public buildings is good.

Wake—Dr. Jas. McKee, Raleigh. The health of the city is splendid—one case of scarlet fever and two of typhoid reported. There has been no epidemic of any contagious or infective disease. The public buildings are in excellent sanitary condition.

Warren—Dr. P. J. Macon, Warrenton. A few cases of typhoid fever reported. Intermittent, remittent and gastric fevers have prevailed in mild form in all portions. The sanitary condition of the county is good; that of the public buildings is excellent.

Washington—No Board of Health.

Watauga—Dr. W. B. Council, Boone. Whooping-cough and typhoid fever have prevailed in the western part of the county. No fatal cases of typhoid, and the whooping-cough was of mild type. The jail is new and in good condition. Poor-house clean and well kept.

Wayne—Dr. W. H. Cobb, Jr., Goldsboro. Malarial and continued fevers have prevailed in many portions of the county. The sanitary condition of county generally is good. Intermittent, remittent, typhoid and typho-malarial fevers have occurred, also some dysentery. Several cases of measles and one of whooping-cough reported. The sanitary condition of the public buildings is good. Water-works have been introduced in the jail, and we now have a very neat and cleanly institution.

Wilkes—No Board of Health.

Wilson—Dr. R. W. King, Wilson. Whooping-cough has prevailed to some extent in the town of Wilson. One case of typhoid fever reported. The sanitary condition of the county is good—no prevailing fevers. There has been

an epidemic of hog-cholera. Public buildings in good sanitary condition.

Yadkin—Dr. T. R. Harding, Yadkinville. Typhoid fever has prevailed in nearly all portions, and there has been some diphtheria. The sanitary condition of the county is bad. A great many physicians, through ignorance or carelessness, do not disinfect typhoid stools. Is there

no law to compel them to do so? If not, there ought to be. Sanitary condition of public buildings is only fair; no efforts at improvement.

Yancey—Dr. J. L. Ray, Burnsville. The general sanitary condition of the county is very good at present. Three cases of typhoid fever have been reported. The jail is in moderately good condition.

Condition of Jails and Poor-houses by Counties for July, 1890.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....	12 ^a	500			34	500		
Alexander.....								
Ashe.....								
Alleghany.....								
Anson.....								
Beaufort.....								
Bertie.....	5				14			
Bladen.....								
Brunswick.....								
Buncombe.....	22	500		16	20	800		12
Burke.....								
Cabarrus.....								
Caldwell.....	4	720	2	4	6	1,260	0	2
Camden.....								
Carteret.....	2	1,745	0	2	0			
Caswell.....	5	450			25	1,000	9	3
Catawba.....	3	950			32	700	10	9
Chatham.....	4	900	2	2	22	1,450	10	10
Cherokee.....					2	1,250		
Chowan.....								
Clay.....								
Cleveland.....	15	684		5	26	997		6
Columbus.....	7	2,376		0	14	2,777		0
Craven.....	12	1,000	1	4	16	1,200	5	1
Cumberland.....	0	800			12		9	8
Currituck.....								
Dare.....								
Davidson.....	2	4,570	0	0	23	720	0	4
Davie.....								
Duplin.....					23	1,000		
Durham.....	25 ^b	1,000		8	18	1,000		1
Edgecombe.....	6	2,764		1	25	3,168		3
Forsyth.....	14	800	8	4	18		6	3

a. Includes 11 in house of correction. *b.* Includes 19 in house of correction.

Condition of Jails and Poor-houses by Counties for July, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Franklin.....	7				20			
Gaston.....	7	1,086	0	4	13	2,589	0	3
Gates.....								
Graham.....								
Granville.....	1	2,500			23	783		
Greene.....	1	500		1	10	1,000		1
Guilford.....	39	317			39	1,333		
Halifax.....	3				52			4
Harnett.....								
Haywood.....								
Henderson.....	1	6,400	1	0	6	1,365	2	4
Hertford.....								
Hyde.....								
Iredell.....	10	1,122			18	616		
Jackson.....	7		3	2	4		2	1
Johnston.....	5	2,000	2	2	16	950	4	5
Jones.....	2	2,760			5	1,120		
Lenoir.....								
Lincoln.....	8	914			29	350		
McDowell.....	5	550	2	2	10	600	1	1
Macon.....	2	1,400						
Madison.....	4	717	0	0	6	2,100	0	0
Martin.....	7	700	1	2	13	1,000	2	3
Mecklenburg.....								
Mitchell.....								
Montgomery.....					15	900		
Moore.....	6	1,600	0	2	9	930	1	3
Nash.....	6	1,260	1	1	43	1,200	12	8
New Hanover.....	16 ^a	500	9	11	19	600	8	6
Northampton.....					37	800	16	10
Onslow.....								
Orange.....	4	512	1	1	30	2,048	12	10
Pamlico.....								

^a. Includes 6 in house of correction.

Condition of Jails and Poor-houses by Counties for July, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	2		2	1	4		2	1
Perquimans.....								
Person.....								
Pitt.....								
Polk.....								
Randolph.....	11	611	0	4	29	525	10	8
Richmond.....								
Robeson.....	17a	628			8	900		
Rockingham.....								
Rowan.....	29	340	5	6	14	2,500	4	5
Rutherford.....	5	1,368		4	26	760		4
Sampson.....	3				23			
Stanly.....								
Stokes.....								
Surry.....								
Swain.....								
Transylvania.....								
Tyrrell.....	1	1,100	0	0	1	1,100	0	0
Union.....	4	1,500		1	20	2,000		2
Vance.....	3	3,392	2	1	15	12,517		3
Wake.....					91b	1,506		
Warren.....	2	5,000	2	2	16	1,860	8	2
Washington.....								
Watauga.....	7	800	4	6	8		4	0
Wayne.....	13	952	2	2	11	1,238	2	4
Wilkes.....								
Wilson.....	4				34			
Yadkin.....	3		0	0	25		0	7
Yancey.....	2	1,700	2	2				

a. Includes 6 in house of correction. b. Includes 73 in house of correction.

Meteorological Report for July, 1896.

STATIONS.	TEMPERATURE.										NO. DAYS.						Prevailing wind.
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	Total rainfall, including hail, snow and sleet (in inches).	
Asheville.....																	
Chat'oga, Tenn.	78.8	95.0	6	64.0	24	31.0	.....	26.0	9	9.0	24	7	17	7	16	4.43	S.
Charleston, S. C.	79.8	92.0	19	66.0	11	26.0	.....	18.0	5	8.0	7	6	7	18	17	12.87	S. W.
Charlotte.....	77.3	96.0	9	57.0	(a)	39.0	.....	29.0	12	3.0	28	18	8	5	12	6.07	S. W.
Columbia, S. C.	78.0	95.0	9	61.0	11	34.0	.....	27.0	3	6.0	21	9	11	11	16	9.34	S. E.
Hatteras	77.0	85.0	4	65.0	11	20.0	.....	15.0	5	5.0	16	18	11	2	13	5.95	N. E. & S.
Kitty Hawk.....	77.4	96.0	31	65.0	(b)	31.0	.....	21.5	31	6.0	20	2	18	11	13	4.38	N. E. S. W.
Knox'le, Tenn.	78.0	95.0	7	62.0	11	33.0	.....	26.0	11	12.0	24	13	12	6	12	3.42	S. W.
Lynchburg, Va.	75.6	97.0	8	54.0	11	43.0	.....	33.0	12	5.0	28	10	13	8	11	4.83	S.
Norfolk, Va.....	76.9	96.0	9	60.0	12	36.0	.....	22.0	9	8.0	10	10	13	8	14	6.33	S.
Raleigh																	
Southport.....	78.6	90.1	5	57.5	11	32.6	.....	19.5	11	6.1	21	3	18	10	15	12.05	S. W.
Wake Forest.....																	
Wilmington	77.0	92.0	8	58.0	11	34.0	.....	21.0	11	10.0	14	6	14	11	16	8.22	S. W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Asheville, N. C						
Chattanooga, Tenn	30.054	30.294	30	29.793	3	.501
Charleston, S. C	30.064	30.292	30	29.734	3	.558
Charlotte, N. C	30.070	30.314	30	29.724	3	.590
Columbia, S. C						
Hatteras, N. C	30.090	30.310	30	29.720	3	.590
Kitty Hawk, N. C						
Knoxville, Tenn	30.068	30.289	30	29.827	3	.452
Lynchburg, Va	30.053	30.261	21	29.718	3	.543
Norfolk, Va	30.064	30.260	30	29.701	3	.559
Raleigh, N. C						
Southport, N. C						
Wake Forest, N. C						
Wilmington, N. C	30.070	30.300	30	29.730	3	.570

(a) 11th and 21st. (b) 21st and 22d.

Mortuary Report for July, 1890.

TOWNS AND REPORTERS.	Races.	Population.		Temporary Annual death Rate per 1,000.		Typhoid Fever.	Scarlet Fever.	Malarial Fever.	Diphtheria.	Whooping-cough.	Measles.	Pneumonia.	Consumption.	Brain Diseases.	Heart Diseases.	Neurotic Diseases.	Paralytic Diseases.	All other Diseases.	Accid't & Violence.	Suicide.	Still-Born.	Total	
		By Races	Total.	By Races	Tot.																	By Races.	By Towns.	Deaths under 5 yrs.
Asheville.....	White	7,000	10,060	20.6	29.8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12	25	12
Dr. H. B. Weaver.....	Color'd	3,060		51.0		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	13	35	4
Charlotte.....	White	7,000	13,000	6.8	22.1	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	4	24	1
Dr. J. Scurr.....	Color'd	6,000		10.9		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	20	24	6
Durham.....	White	4,000	7,500	9.0	10.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	6	4
Dr. N. M. Johnson.....	Color'd	3,500		12.0		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	6	4
Fayetteville.....	White	3,000	5,200	48.0	27.7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	12	12
Dr. J. A. Hodges.....	Color'd	2,200		0.9		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	12	12
Goldsboro.....	White	2,500	5,000	33.6	21.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	9	2
Dr. W. H. Cobb, Jr.....	Color'd	2,500		9.6		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	9	2
Henderson.....	White	2,250	4,250	0.0	8.5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	3
Dr. A. Cheatham.....	Color'd	2,000		18.0		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	3	3
Newbern.....	White	3,000	7,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S. Fulcher, City Cl'k.....	Color'd	4,000		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oxford.....	White	1,600	3,300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. J. M. Hays.....	Color'd	1,700		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Raleigh.....	White	8,000	15,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. Jas. McKee.....	Color'd	7,000		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salisbury.....	White	3,000	5,000	4.0	4.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
Dr. I. J. Summerell.....	Color'd	2,000		6.0		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
Tarboro.....	White	2,258	2,370	19.0	15.2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	1
Dr. J. M. Baker.....	Color'd	1,112		10.8		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1
Washington.....	White	2,400	4,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. S. T. Nicholson.....	Color'd	1,600		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wilmington.....	White	9,000	23,000	9.3	21.9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	42	3
Dr. F. W. Potter.....	Color'd	14,000		39.0		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	35	20
Hillsboro.....	White	600	1,000	60.0	48.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	4	1
Dr. D. C. Parris.....	Color'd	400		30.0		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1
Statesville.....	White	.....	.....	.....	(a) 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	6	1
Dr. M. W. Hill.....	Color'd	.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	6	1
Wilson.....	White	2,000	3,500	12.0	13.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	1
Dr. N. Anderson.....	Color'd	1,500		16.0		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	1
Pittsboro.....	White	350	600	0.0	20.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	1	.....
Dr. L. A. Hanks.....	Color'd	250		48.0		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....
Warrenton.....	White	1,080	2,000	.....	0.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	.....	.....
Dr. P. J. Macon.....	Color'd	920		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	.....	.....
Greensboro.....	White	4,000	6,000	9.0	12.0	3	6
Dr. E. R. Michaux.....	Color'd	2,000		18.0		3	6

(a) Population not given.

BULLETIN

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THOMAS F. WOOD, M. D., *Secretary and Treasurer*, Wilmington.

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VOL. V.

SEPTEMBER, 1890.

No. 6

The Cholera

Asiatic cholera now prevails on the Arabian shore of the red Sea, in Cairo, at Baku, and Nicolaieff, in Russia, and in several provinces of Spain. From Valencia the disease has been carried to several other coast provinces, to Madrid, and across the country to the borders of Portugal. Cholera first appeared near Mecca this year, on July 23th, and the daily mortality in Mecca and Cairo was several hundred one week later. At first the Egyptian government sought to bar out the disease by preventing the return of the pilgrims northward, and the strictest quarantine was enforced, but, in all probability, the infection had passed before these precautions were taken, for there are cases of cholera in Cairo, and it is probable that there are cases at ports further westward on the southern shore of the Mediterranean.—*Weekly Medical Review.*

The Quantity of Sulphur Necessary for Disinfection.

Dr. H. B. Baker, Secretary of the Michigan State Board of Health, Lansing, Michigan,

sends us the following copy of a letter addressed to Dr. Samuel P. Duffield, Health Officer of the City of Detroit, Michigan, under date of August 7th, 1890:

"DEAR DOCTOR—In the Detroit newspapers to-day, in a synopsis of your annual report, I see that you propose to displace fumigation by fumes of burning sulphur. Permit me to ask your attention, and that of the Detroit Board of Health, to some facts which bear on this subject, and which could not be had except through this office, excluding Detroit and Grand Rapids (the *data* from which cannot be profitably included with the *data* from the smaller places). The official reports to this office prove, beyond a reasonable doubt, that isolation and disinfection *do* restrict diphtheria. I send herewith three diagrams, in which are condensed the experiences of health officers throughout Michigan in over a thousand outbreaks of diphtheria in the years 1886, 1887 and 1888. They prove that in those outbreaks in which isolation and disinfection were *neglected* there were, on the average, over fourteen cases, with nearly three deaths to an outbreak. They prove that in those outbreaks in which isolation

and disinfection were *enforced*, there was an average of only a little over two cases, with only about six-tenths of one death to each outbreak, and it must be remembered that these figures relate to instances in which at least one case of diphtheria had already occurred in the community, and that occasionally several cases occur at once, on the start. The method of disinfection referred to is that recommended by this State Board, namely: Burning three pounds of sulphur for every thousand cubic feet of air space in a room, infected articles being loosely spread out, and because of movement of infected articles from the sick-room, and from one room to another, all rooms in the house are disinfected, together with all contents.

"The evidence of the complete success of this method throughout the State (except in Detroit and possibly Grand Rapids) is so conclusive, that it seems to me certain that any failure in Detroit must be due to some imperfection in the application of the method of disinfection. I do not claim that Dr. Chapoton's suggestion is correct—that it 'was attributable to the carelessness of the disinfecting physician.' I think it quite likely that the failure in Detroit is due to the use of *too little sulphur*. (Possibly the exact weight of the sulphur may not be correctly estimated when mixed with another substance?)

"I respectfully submit that a few laboratory experiments should not be allowed to prevail against two hundred and fifty successful ones in the experience of health officers in restricting actual outbreaks of diphtheria in Michigan. During the last three years the known saving of life in Michigan from diphtheria, by isolation and disinfection, has averaged one and a half persons a day. However, there are many laboratory experiments which coincide with the experience of the health officers in Michigan.

"I send you herewith a hektograph copy of an account of experiments by Pasteur and M. Roux, with the co-operation of Dujardin-Beaumetz, which prove both the points which I desire to make—(1) that the burning of two pounds of sulphur per one thousand cubic feet of air space is not always certainly effective;

and (2) that three pounds *is* effective. This applies to a closed room. If there are openings through which the fumes may pass, more sulphur is required.

"Permit me to suggest that if any method of disinfection is adopted which involves the movement of infected clothing or other articles through the streets to a central disinfecting station, no such removal be permitted until after such articles have been submitted to disinfection by fumes of burning sulphur, or by chlorine gas, or other equally effective gaseous disinfectant which shall thoroughly permeate the room and contents.

"From my practical experience and observation with such disinfectants, I wish to commend the method by fumes of burning sulphur *without* the addition of extra moisture to the atmosphere. When such moisture is added, many valuable articles are destroyed, which, without such moisture, would not be injured.

"I trust that this entire subject will receive thorough investigation by your Board, and I shall be glad to be informed of the result. The State Board of Health desires to utilize, for the entire State, all new methods and all new facts which you can supply on this important subject."

Very respectfully,

HENRY B. BAKER,

Secretary.

The following is the hektograph copy referred to, translated by John H. Kellogg, M. D., Battle Creek, Michigan:

DISINFECTION BY FUMES OF BURNING SULPHUR.

Experiments by Pasteur and M. Roux, in the Cochin Hospital at Paris, were carried on under the observation and with the co-operation of Dujardin-Beaumetz, physician to the hospital, and one of the most eminent medical authorities of France. Dujardin-Beaumetz makes a summary report of the experiments in a work entitled *Les Nouvelles Medications*. A few paragraphs from pages 76 and 77 of this work show substantially as follows:

"Twenty grammes of sulphur to a cubic meter (153 lbs. per 1,000 cubic feet of air space), destroys the different micro-organisms in a moist state, but it is necessary to increase this

dose if one wishes to destroy some organisms in a dry state. In fact, since the last communication to the Academy, M. Bardet and myself, aided by M. Chambon, have continued these experiments upon micro-organisms in a dry state, and particularly upon vaccine virus. We have taken from the pustules of vaccinia scabs, which we have reduced to fine powder and placed in chambers where were variable quantities of flower of sulphur. When a dose did not exceed twenty grammes per cubic meter the vaccine powder did not lose its properties, and one could, by inoculating animals and infants, obtain a vaccine eruption.

"With 30 grammes per cubic meter (2.297 lbs. per 1,000 cubic feet of air space), the results obtained were uncertain; sometimes the powder loses its properties. But when the dose is increased to 40 grammes per cubic meter (3.06 lbs. per 1,000 cubic feet of air space), the inoculations were always inactive. So, then, for vaccine and probably for variola, if one desires to destroy the contagious germs in a dry state, it is necessary to double the dose of 20 grammes, which we have already fixed.

"According to the experiments of Vallin and of Legouest, 20 grammes are sufficient for typhoid fever, while, according to Vallin 40 grammes are necessary for the microbe of tuberculosis.

"In the case of beef tea cultures, the dose must vary according to the micro-organisms experimented with.

"The results at which we have arrived are absolutely confirmative with those which have previously been obtained by Polli, of Milan; Pettenkofer, of Munich; Dougall, of Glasgow; Facio, of Geneva, and Pietra Santa, of Paris, and, finally, of the researches of Vallin, published in his able work upon disinfectants."—*The College and Clinical Record*.

Review of Diseases for August, 1890.

Bronchitis—Jones.

Cholera, Asiatic (one sporadic case)—Orange.

Cholera (chicken)—Johnston.

Cholera (hogs)—Johnston, Randolph, Rowan, Sampson.

Cholera Infantum—Johnston, Wayne, Yancey.

Diarrhoea—New Hanover, Wayne.

Diphtheria—Buncombe, Cleveland, Orange, Randolph, Robeson, Rowan, Sampson, Wayne.

Distemper (horses)—Davidson, Mitchell.

Dysentery—Mitchell, Pitt.

Eczema—Wayne.

Erysipelas—Yancey.

La Grippe (epidemic closely resembling) Onslow.

Malarial Fever—Alamance, Caswell, Chowan, Edgecombe, Franklin, Greene, Guilford, Halifax, Iredell, Johnston, Lincoln, Nash, New Hanover, Onslow, Orange, Pitt, Randolph, Robeson, Sampson, Tyrrell, Union, Wayne, Yancey.

Malarial Fever, Hemorrhagic—Davidson, Northampton, Randolph.

Malarial Fever, Pernicious—Cabarrus, Davidson, Pitt, Randolph, Wayne.

Measles—Buncombe, Cabarrus, Chatham, Cherokee, Henderson, Iredell, New Hanover, Onslow, Polk, Randolph, Richmond, Robeson, Swain.

Meningitis—Pitt, Rowan.

Mumps—Gaston, Polk, Randolph.

Pneumonia—Yancey.

Rheumatism—Randolph.

Scarlatina—Cherokee, Davidson.

Tonsillitis—Orange, Randolph.

Typhoid Fever—Buncombe, Cabarrus, Caldwell, Chatham, Cherokee, Chowan, Cleveland, Davidson, Edgecombe, Franklin, Gaston, Greene, Guilford, Johnston, Lincoln, Macon, McDowell, Mitchell, Montgomery, Nash, New Hanover, Northampton, Orange, Pitt, Polk, Randolph, Richmond, Robeson, Rowan, Ruthersford, Sampson, Swain, Tyrrell, Union, Watauga, Wayne, Yancey.

Typho-Malarial Fever—Alamance, Chatham, Granville, Guilford, Halifax, Randolph, Wayne.

Whooping-Cough—Buncombe, New Hanover, Randolph, Richmond, Sampson, Watauga.

Summary of Mortuary Statistics from Towns for August, 1890.

	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Aggregate population (13 towns)	53,264	46,012	99,276
Aggregate deaths.....	64	87	151
Temporary annual death rate per 1,000.....	14.4	22.6	18.3
Deaths under 5 years..	.....	.....	67
<i>Causes of death.</i>			
Typhoid fever.....	4	11	15
Malarial Fever.....	3	2	5
Diphtheria.....	0	1	1
Whooping-cough....	0	2	2
Pneumonia.....	1	1	2
Consumption.....	3	11	14
Brain diseases.....	6	2	8
Heart diseases.....	4	3	7
Neurotic diseases....	0	1	1
Diarrhoeal diseases...	13	15	28
All other diseases...	20	30	50
Accident.....	2	4	6
Suicide.....	1	1	2
Still-born.....	7	3	10
Total.....	64	87	151

Summary of Reports from County Superintendents for August, 1890.

No board organized. Reporter named is a voluntary correspondent.

Alamance—Dr. George W. Long, Graham. A few cases of malarial and typho-malarial fevers have prevailed in some portions of the county. The sanitary condition of the county and public buildings about as good as usual.

Alexander—No Board of Health.

Ashe—No Board of Health.

* *Alleghany*—Dr. G. W. Daughton, Sparta. No report.

Anson—Board of Health just organized.

Beaufort—Dr. W. A. Blount, Washington. No report.

Bertie—Dr. H. V. Dunstan, Windsor. No epidemic of any kind has prevailed in the county, and the sanitary condition is very good.

The county jail and poor-house are in good condition.

Bladen—Dr. Newton Robinson, Elizabethtown. No epidemic has prevailed in any part of the county. The sanitary condition of the county is good; that of the public buildings is fair.

* *Brunswick*—Dr. D. R. McNeill, Supply. No report.

Buncombe—Dr. H. B. Weaver, Asheville. Measles have prevailed in some portions of the county. Typhoid fever of mild type has occurred in all portions; more in the rural districts than in the city. Two cases of diphtheria (both fatal) have occurred. Whooping-cough reported. The sanitary condition of the county and public buildings is good.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. S. Young, Concord. Seven cases of measles, twenty-four of whooping-cough, fourteen of typhoid fever and one of pernicious malarial fever have been reported. The sanitary condition of the county and public buildings is good.

Caldwell—Dr. A. A. Kent, Lenoir. Thirteen cases of typhoid fever have been reported. The sanitary condition of the county is better than it was last month. Typhoid fever of a malignant type has prevailed in parts of the county. The death-rate has been larger than usual. Very little other sickness. Sanitary condition of jail is bad; that of the poor-house is good.

* *Camden*—Dr. E. B. Ferebee, Belcross. No report.

Carteret—Dr. M. F. Arendell, Morehead City. The sanitary condition of the county has never been better. We are remarkably free from sickness of any kind. Sanitary condition of public buildings is good.

Caswell—Dr. R. H. Williamson, Yanceyville. A few cases of remittent and intermittent fevers have prevailed. The sanitary condition of the county and public buildings is good.

Catawba—Dr. J. M. McCorkle, Newton. No report.

Chatham—Dr. L. A. Hanks, Pittsboro. Measles have prevailed in several portions of the

county. Ten cases of typhoid fever have been reported. The sanitary condition of the county is good, as far as known. Measles, typhomalarial and typhoid fever have prevailed to a considerable extent. The sanitary condition of public buildings is very good.

Cherokee—Dr. J. F. Abernathy, Murphy. The health of the county for the month has been good; that of the town not so good. There have been reported five cases of measles, six of scarlatina and twelve of typhoid fever. I have information of only five cases of typhoid fever outside the town. The sanitary condition of public buildings is fair. The death-rate from fever has been greater this year than last, owing, probably, to its earlier invasion.

Chowan—Dr. R. W. Winborne, Barnitz. Three cases of typhoid fever have been reported. Malarial fevers have prevailed. The sanitary condition of county and public buildings is good.

Clay—No Board of Health.

Cleveland—Dr. O. P. Gardner, Shelby. There has been no epidemic among man or domestic animals. One case of diphtheria and seven of typhoid fever have been reported. Sanitary condition of the county has improved. That of public buildings good.

Columbus—Dr. I. Jackson, Whiteville. There have been five cases of typhoid fever reported. The sanitary condition of the county is very good for the season. Malarial fever has prevailed, to a limited extent, in some portions, with diarrhoea, of a mild type, among children. The sanitary condition of public buildings is good.

Craven—Dr. Leinster Duffy, New Bern. No report.

Cumberland—Dr. T. D. Haigh, Fayetteville. The sanitary condition of the county is excellent. No contagious diseases reported. Sanitary condition of public buildings is good.

**Currituck*—Dr. F. W. Ritter, Moyock. No report.

Dare—No Board of Health.

Davidson—Dr. R. L. Payne, Lexington. No epidemic has prevailed in any portion of the county. Distemper has been epidemic among cattle in one township. Two cases of

scarlatina, fifteen of diphtheria, eight of typhoid fever and one each of pernicious and hæmorrhagic malarial fever have occurred. The sanitary condition of the county is good, except in one or two sections, where ditching of the lowlands is badly needed. Sanitary condition of public buildings is good, except jail.

Davis—No Board of Health.

Duplin—Dr. Jas. W. Blount, Kenansville. The sanitary condition of the county is very good. But very little sickness of any kind reported. Sanitary condition of public buildings is good.

Durham—Dr. N. M. Johnson, Durham. The health of Durham and the county has been very good. The sanitary condition of public buildings is good.

Edgecombe—Dr. J. M. Baker, Tarboro. Typhoid and malarial fevers have prevailed in some sections. The sanitary condition of the county is good.

Forsyth—Dr. D. N. Dalton, Winston. No report.

Franklin—Dr. E. S. Foster, Louisburg. Four cases of typhoid fever reported. Continued fever has prevailed in some sections to a limited extent. So far as I can learn, the sanitary condition was never better. The health of this place is excellent. There is rarely a case of sickness in the jail. I have had charge of it for the last eleven years, and there has been only one case of sickness—a case of typhoid fever, which was fatal.

Gaston—Dr. E. B. Holland, Dallas. Typhoid fever and mumps have prevailed in some sections. The sanitary condition of the county is only fair. That of public buildings is good.

Gates—No Board of Health.

Graham—No Board of Health.

Granville—Dr. J. M. Hays, Oxford. No epidemic has prevailed in any portion of the county. The sanitary condition of county is very good. Several cases of continued fever, described by Dr. Oscar McMullen in recent *Medical Record* as typhoid, have occurred.

Greene—Dr. E. H. Sugg, Snow Hill. Malarial and typhoid fevers have prevailed. There are many cases of chills and fever reported

from the western portion of the county. The sanitary condition of the county, generally speaking, is good. The sanitary condition of public buildings is very good. The jail has been scalded and whitewashed on the inside.

Guilford—Dr. E. R. Michaux, Greensboro. Have had considerable sickness during the month. Simple malarial and continued or typho-malarial fevers have prevailed throughout the county; also a few cases of typhoid fever and some lung troubles. The majority of these fever cases have been attended by peculiarities not heretofore common—(1) high temperature with only slightly accelerated pulse; (2) high temperature with accompanying profuse sweating. The greater part of these have also suffered with marked involvement of the nervous system. Many of the physicians attribute these abnormalities to a remaining ill-effect of "La Grippe." Sanitary condition of public buildings appears quite good.

Hatifax—Dr. A. B. Pierce, Weldon. Malarial and typho-malarial fevers have prevailed in some portions of the county. The sanitary condition, as far as heard from, has been good. I would especially remark that there has been little or no fever of malarial origin on the river farms. Sanitary condition of public buildings good. Some improvements promised at the poor-house.

Harnett—No Board of Health.

Haywood—Dr. R. L. Allen, Waynesville. No report.

Henderson—Dr. W. B. Reese, Hendersonville. Four cases of measles have been reported. The sanitary condition of the county is, I think, good. Never before have I known less sickness during August. There is very little of any kind. The sanitary condition of public buildings is good.

Hertford—No Board of Health.

* *Hyde*—Dr. Ed. Clark, Middleton. No report.

Iredell—Dr. M. W. Hill, Statesville. The sanitary condition of the county, as far as heard from, is good. I have heard of a few cases of malarial fever, also of measles, in our township. The public buildings are in about their usual sanitary condition. There has been put up at

the poor-house since the last report one new building of two rooms.

Jackson—Dr. J. M. Candler, Dillsboro. The sanitary condition of the county was never better; that of public buildings is good.

Johnston—Dr. L. L. Sasser, Smithfield. Fevers of malarial type and bowel troubles have prevailed. Four cases typhoid and some cholera-infantum have occurred. Cholera has been epidemic among hogs and chickens. The sanitary condition of county and public buildings is good.

Jones—Dr. C. B. Woodley, Trenton. Acute bronchitis has prevailed in some portions. The sanitary condition of poor-house is good; that of jail only moderately so.

Lenoir—No Board of Health.

Lincoln—Dr. W. L. Crouse, Lincolnton. Two cases of typhoid fever have been reported. The sanitary condition of the county is very good. A few cases of malarial fever have prevailed in some portions. The public buildings are well kept.

Macon—Dr. J. M. Lyle, Franklin. Ten cases of typhoid fever have been reported. The sanitary condition of the county is good, except near the head of some of our creeks, where typhoid fever has spread a good deal. The sanitary condition of public buildings is good.

Madison—Dr. J. K. Hardwicke, Marshall. No report.

Martin—Dr. W. H. Harrell, Williamston. No report.

McDowell—Dr. J. H. Gilkey, Marion. Typhoid fever has prevailed in some portions, ten cases having been reported. With this exception, the health and sanitary condition of the county has been very good. The sanitary condition of public buildings is good.

Mecklenburg—No Board of Health.

Mitchell—Dr. W. P. Upton, Bakersville. There have been reported twenty-three cases of typhoid fever, with five deaths, and eight cases of dysentery. The sanitary condition of the county is not good. There has been some distemper among horses. The sanitary condition of poor-house is good; that of the jail is not good.

Montgomery—Dr. W. A. Simmons, Troy. One case of typhoid fever reported. There has been the usual summer complaint among children. The sanitary condition of the public buildings is good enough.

Moore—Dr. Gilbert McLeod, Carthage. No report.

Nash—Dr. G. W. Lewis, Springhope. With the exception of a few cases of typhoid and malarial fevers there has been no sickness during August. The public buildings are in good sanitary condition.

New Hanover—Dr. F. W. Potter, Wilmington. Two cases of measles, three of whooping-cough and three of typhoid fever reported. Diarrheal and malarial troubles have prevailed in the southern part of the city. I am informed that the sanitary condition of the county is good. The jail has been lately renovated; the sickness there is only of a venereal nature. The new poor-house and house of correction are nearing completion.

Northampton—Dr. H. W. Lewis, Jackson. The sanitary condition of the county is as good as usual at this season. Five cases of typhoid fever and one of hæmorrhagic malarial fever reported. Sanitary condition of public buildings good.

Onslow—Dr. J. L. Nicholson, Richlands. An epidemic, in some cases closely resembling "La Grippe" of February, prevailed generally over the county. Considerable malarial fever, mostly of light form, and some bowel troubles among children have occurred. A few cases of measles reported. The jail is well kept and properly ventilated. The poor-house still remains unsuitable, both as to ventilation and comfort, in winter or summer.

Orange—Dr. D. C. Parris, Hillsboro. Four cases of diphtheria, four of typhoid fever and one of cholera have occurred. Malarial diseases and tonsillitis have prevailed in all portions. The sanitary condition of all sections of the county is good. Fever has been rather severe; diphtheria mild. Sanitary condition of public buildings is good. There are being made some efforts to improve some of the school-houses by new method of heating and improved lights.

Pamlico—No Board of Health.

Pasquotank—No Board of Health.

Pender—Dr. S. S. Satchwell, Burgaw. The public buildings are not in as good sanitary condition as they should be, in spite of the constant advice and repeated remonstrances of the County Superintendent of Health. Drainage of the court-house square and around the jail is sadly neglected. There have been comparatively few malarial diseases this month.

Person—No Board of Health.

Pitt—Dr. B. T. Cox, Redalia. Gastro-intestinal troubles have prevailed in some sections among infants. A few cases of dysentery still linger. One case of pernicious malarial fever reported. Malarial fever is quite prevalent, and in some localities there is some typhoid. On the north side of Tar River several cases of meningitis have been reported. Sanitary condition of public buildings is only ordinary.

Polk—Dr. Henry Shankle, Milk Springs. Five cases of measles and one of typhoid fever reported. Mumps have prevailed in several portions of the county. The sanitary condition of the county is excellent, as it is a rolling country and generally affords excellent health for the people. Condition of the jail and court-house is very good—the jail is kept better than the court-house. The poor-house is not very attractive, and should be better attended to. We hope it will be in the near future.

Randolph—Dr. J. W. Long, Randleman. Measles, twenty-one cases, whooping-cough seven, diphtheria two, typhoid fever thirty-seven, typho-malarial sixteen, pernicious malarial three, malarial thirty, hæmorrhagic malarial three and two cases of mumps have been reported. Malaria, typhoid, measles, whooping-cough, tonsillitis and rheumatism have been the prevailing diseases. There has been a slight epidemic of hog cholera. The sanitary condition of the county is very good at present, and that of the public buildings is as good as usual.

Richmond—Dr. J. M. Covington, Rockingham. I have to report for the month of August quite a number of cases of measles and

whooping-cough, and several cases of typhoid fever, of mild type, as having occurred at two of the cotton factories near Rockingham. The health of the county generally has been unusually good. The sanitary condition of the county and public buildings is good.

Robeson—Dr. R. F. Lewis, Lumberton. Measles, whooping-cough, diphtheria and typhoid fever have occurred. Malarial fever has prevailed in some portions. The sanitary condition of the county and public buildings is fairly good.

**Rockingham*—Dr. T. E. Balsley, Reidsville. No Report.

Rowan—Dr. J. J. Summerell, Salisbury. Diphtheria and typhoid fever have prevailed in town and county to a small extent. There has been some cholera among hogs. The county seems to be very healthy. Notwithstanding the absence of disease there is need of sanitary work in every part of the county, but with present ignorance of the people and the apathy of the Board of Health, how is it to be reached? The sanitary condition of the public buildings is good, that is, under ordinary circumstances. When there are over forty prisoners in the jail, as there have been most of the month, the sanitary state must be anything but good; but the remedy does not as yet present itself practically.

Since the above was written reports have reached me of diphtheria and typhoid in other parts of the county, and one case of meningitis, proving fatal in fourteen hours from its inception.

Rutherford—Dr. E. B. Harris, Rutherfordton. Two cases of typhoid fever reported. The sanitary condition of the county is good; also that of public buildings—inmates are in good health.

Sampson—Dr. J. A. Stevens, Clinton. There has been an epidemic of cholera among hogs. I hear of several cases of diphtheria in the upper part of the county. Whooping-cough and malarial fevers are prevalent, with a few cases of typhoid fever. The sanitary condition of poor-house is very good. The jail is nothing to boast of. We need a new one.

**Stanly*—Dr. R. Anderson, Albemarle. No report.

Stokes—Dr. W. A. McAndlis, Danbury. No report.

Swain—No Board of Health.

Swain—Dr. R. L. Davis, Bryson City. Twenty cases of measles and four of typhoid fever have been reported. The sanitary condition of the county is fairly good; that of the public buildings is as good as could be expected under the circumstances.

Transylvania—Dr. D. H. Farmer, Brevard. No report.

Tyrrell—Dr. Ab. Alexander, Columbia. Malarial fever has prevailed in certain portions of the county, and two cases of typhoid fever have been reported. The sanitary condition of the county is very good, especially for this season of the year; that of the public buildings is not.

Union—Dr. W. C. Ramsay, Monroe. Malarial and typhoid fevers have prevailed in some portions. The sanitary condition of the county has been good; that of the poor-house good; that of the jail *bad*.

Vance—Dr. A. Cheatham, Henderson. The sanitary condition of the county is very good for this season.

Wake—Dr. Jas. McKee, Raleigh. The sanitary condition of the county reported good, with no diseases prevailing in epidemic form.

Warren—Dr. P. J. Macon, Warrenton. No report.

**Washington*—Dr. W. H. Ward, Plymouth. No report.

Watauga—Dr. W. B. Council, Boone. Twenty cases of whooping-cough and two of typhoid fever have been reported. The typhoid did not originate in this county, but came from Tennessee. Sanitary condition of county good—no sickness of any note. The jail and poor-house are both in first-class condition, new and bright, and the inmates healthy.

Wayne—Dr. W. H. Cobb, Jr., Goldsboro. One case each of diphtheria and pernicious malarial fever, and several of typhoid fever have been reported. Typho-malarial, remit-

tent and intermittent fevers have prevailed in town and county. Two cases of cholera infantum reported. Summer diarrhœas, continued fevers and eczema have occurred. The sanitary condition of the public buildings is generally very good.

Wilson—Dr. R. W. King, Wilson (Dr. A. Anderson, acting). The sanitary condition of the county is good—no prevailing disease. That of public buildings is also good.

Wilkes—No Board of Health.

Yadkin—Dr. T. R. Harding, Yadkinville. No report.

Yancey—Dr. J. L. Ray, Burnsville. Four cases of typhoid fever have been reported. The sanitary condition of the county is good. That of the public buildings is moderately good. Cholera infantum, erysipelas, malarial fever and pneumonia have occurred.

Condition of Jails and Poor-houses by Counties for August, 1890.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....	1	1,000			45 ^a	500		
Alexander.....								
Ashe.....								
Alleghany.....								
Anson.....								
Beaufort.....								
Bertie.....	5				14			
Bladen.....	4				6			
Brunswick.....								
Buncombe.....	18	800		8	25	800		15
Burke.....								
Cabarrus.....	14	1,021	2	2	22	1,200	6	5
Caldwell.....	1	2,880	1	1	6	1,200	0	2
Camden.....								
Carteret.....	2	870	1	2	0			
Caswell.....	0				26	1,000	9	3
Catawba.....								
Chatham.....	5	1,500	3	3	21	1,300	10	10
Cherokee.....	1		1	1	2			
Chowan.....								
Clay.....								
Cleveland.....	12	684		6	23	907		7
Columbus.....	5	3,026		2	11	3,544		0
Craven.....								
Cumberland.....	3			7	14			
Currituck.....								
Dare.....								
Davidson.....	5	2,188	0	0	23	721	0	3
Davie.....								
Duplin.....					19	1,000		
Durham.....	8	1,000		4	35 ^b	1,000		7 ^c
Edgecombe.....	6	2,764	0	2	24	3,300	0	3
Forsyth.....								

^a. Includes 11 in house of correction in sp. 400. ^b. Includes 18 in house of correction in sp. 1,000.
^c. Includes 5 in house of correction.

Condition of Jails and Poor-houses by Counties for August, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Franklin.....	7				20			
Gaston.....	7	1,087	0	3	14	2,404	0	4
Gates.....								
Graham.....								
Granville.....	3	8,000			22	890		
Greene.....					11	1,000		2
Guilford.....					30	1,333		
Halifax.....	9			1	52			4
Harnett.....								
Haywood.....								
Henderson.....	2	3,200		1	6	1,365		4
Hertford.....								
Hyde.....								
Iredell.....	5				10			
Jackson.....	5	1,000	2	3	4	1,000	3	2
Johnston.....	5	2,000	3	3	18	1,000	6	5
Jones.....	2	2,750			5	1,120		
Lenoir.....								
Lincoln.....	8	954			29	330		
McDowell.....	5	550	1	1	10	600	1	1
Macon.....	0				0			
Madison.....								
Martin.....								
Mecklenburg.....								
Mitchell.....								
Montgomery.....	2	600		2	12	960		
Moore.....								
Nash.....	5		2	2	43		12	8
New Hanover.....	15	500	10	8	22 ^a		12 ^b	10 ^c
Northampton.....					38	800	16	11
Onslow.....								
Orange.....	4	512	0	1	30	2,018	12	11
Pamlico.....								

^a. Includes 4 in house of correction. ^b. Includes 2 in house of correction. ^c. Includes 2 in house of correction.

Condition of Jails and Poor-houses by Counties for August, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	8				4			
Perquimans.....								
Person.....								
Pitt.....								
Polk.....	6	1,800	0	5	3	1,500	0	1
Randolph.....	12	560	9	10	20	525	10	8
Richmond.....								
Robeson.....	15	481			15 ^a	80 ¹		
Rockingham.....								
Rowan.....	21	333	7	12	12	3,000	4	2
Rutherford.....	7	980	2	5	26	993	6	4
Sampson.....	4				19			
Stanly.....								
Stokes.....								
Surry.....								
Swain.....	1							
Transylvania.....								
Tyrrell.....	1	1,100		0	1	1,100		0
Union.....	3	1,500			20	2,000		2
Vance.....	8	1,272			15	1,000		
Wake.....								
Warren.....								
Washington.....								
Watauga.....	8				7			
Wayne.....	17	735	2	5	9	1,050	1	2
Wilkes.....								
Wilson.....	4		0	1	24			
Yadkin.....								
Yancey.....	3		3	3				

^a. Includes 6 in house of correction. Can this be so?

Meteorological Report for August, 1896.

STATIONS.	TEMPERATURE.										NO. DAYS.						
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	Total rainfall, including hail, snow and sleet (in inches)	Prevailing wind.	
Chapel Hill.....																	
Chat'oga, Tenn.	75.0	93.0	3	56.0	13	37.0	.....	25.0	13	6.0	28	11	13	7	17	5.15	S. W.
Charleston, S. C.	79.2	93.0	27	65.0	13	28.0	.....	20.0	13	6.0	26	11	11	6	10	5.16	S. W.
Charlotte.....	75.3	92.0	1	57.0	12	35.0	.....	25.0	13	12.0	22	15	12	4	9	5.35	S.
Columbia, S. C.	77.0	95.0	27	57.0	24	36.0	.....	26.0	25	10.0	29	13	17	1	11	3.93	S.
Hatteras	76.0	84.0	22	65.0	25	19.0	.....	12.0	25	6.0	29	17	10	4	14	5.51	S. W.
Kitty Hawk.....	78.6	98.5	1	63.5	24	35.0	.....	27.0	9	6.5	23	1	23	7	13	5.57	S. W.
Knoxv'le, Tenn.	74.0	92.0	3	53.0	12	39.0	.....	27.0	24	2.0	28	9	10	12	15	4.39	S. W.
Lynchburg, Va..	74.0	93.0	1	47.0	24	46.0	.....	28.0	13	12.0	27	7	16	8	13	3.81	S.
Norfolk, Va.	75.3	93.0	1	58.0	24	35.0	.....	21.0	11	5.0	29	10	15	6	17	9.36	S. W.
Raleigh.....	74.5	92.0	1	52.0	24	40.0	17.8	21.0	(a)	11.0	3	12	13	6	12	5.53	S. W.
Southport.....	72.2	88.0	20	58.4	13	39.6	.....	24.6	13	8.0	21	6	19	6	14	3.52	S. W.
Wake Forest.....																	
Wilmington	76.0	89.0	27	60.0	24	23.0	.....	20.0	30	9.0	18	6	15	10	17	6.48	S. W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Asheville, N. C.....						
Chattanooga, Tenn	30.103	30.264	17	29.932	26	.332
Charleston, S. C.	30.087	30.237	6	29.849	29	.388
Charlotte, N. C.	30.103	30.391	17	29.810	29	.471
Columbia, S. C.						
Hatteras, N. C.	30.100	30.349	17	29.730	29	.550
Kitty Hawk, N. C.						
Knoxville, Tenn	30.117	30.276	17	29.948	29	.328
Lynchburg, Va.	30.071	30.293	24	29.829	29	.464
Norfolk, Va.	30.076	30.306	17	29.835	29	.471
Raleigh, N. C.	30.088	30.294	17	29.877	29	.417
Southport, N. C.						
Wake Forest, N. C.						
Wilmington, N. C.	30.090	30.290	17	29.830	29	.460

(a) 16th and 17th.

Mortuary Report for August, 1890.

TOWNS AND REPORTERS.	Race.	Population.		Temporary Annual death Rate per 1,000.	Tot.	Typhoid Fever.	Scarlet Fever.	Malarial Fever.	Diphtheria.	Whooping- Cough.	Measles.	Consumption.	Brain Diseases.	Heart Diseases.	Nervous Diseases.	Diarrhoeal Diseases.	All other Diseases.	Accident & Violence.	Suicide.	Still-Born.	Total	
		By Races	Total.	By Races																	By Races.	Total Deaths under 5 yrs.
Asheville.....	White	7,000	10,000	13.7	21.6	2	2	1	1	1	1	1	1	1	1	1	1	1	1	10	18	6
Dr. H. B. Weaver.....	Color'd	3,000		40.0																		
Charlotte.....	White	7,000	13,000	13.7	23.1	2	1	1	1	1	1	1	2	4	1	1	1	1	1	17	25	11
Dr. J. Scurr.....	Color'd	6,000		34.0																		
Durham.....	White	4,000	7,000	9.0	10.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	6	3
Dr. N. M. Johnson.....	Color'd	3,000		12.0																		
Fayetteville.....	White	2,900	5,200	12.4	16.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	7	3
Dr. A. Hedges.....	Color'd	2,200		26.8																		
Goldsboro.....	White	2,500	5,000	9.6	9.6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	9	0
Dr. W. H. Cobb, Jr.....	Color'd	2,500		9.6																		
Henderson.....	White	2,256	4,256	9.0	8.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	5	1
Dr. A. Cheatham.....	Color'd	2,000		18.0																		
Newbern.....	White	3,000	7,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. S. Fulcher, City Clerk.....	Color'd	4,000		.....																	
Oxford.....	White	1,600	3,300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. J. M. Hays.....	Color'd	1,700		.....																	
Raleigh.....	White	8,000	15,000	24.0	24.8	1	1	1	1	1	1	2	2	1	1	6	1	2	16	31	15	0
Dr. Jas. McKee.....	Color'd	7,000		25.7																		
Salisbury.....	White	2,750	1,250	9.0	17.8	2	2	1	1	1	1	1	1	1	1	1	1	1	1	4	6	2
Dr. I. J. Summerell.....	Color'd	1,500		32.0																		
Tarboro.....	White	1,258	2,370	38.1	39.4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	4	6	2
Dr. J. M. Baker.....	Color'd	1,112		21.6																		
Washington.....	White	2,400	3,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. S. T. Nicholson.....	Color'd	1,600		.....																	
Wilmington.....	White	9,000	23,000	19.3	19.9	.....	.....	.....	.....	.....	.....	2	1	1	1	7	13	1	1	13	38	0
Dr. F. W. Potter.....	Color'd	14,000		21.4																		
Greensboro.....	White	4,000	6,000	9.0	6.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	3	3	0
Dr. E. R. Michaux.....	Color'd	2,000		9.0																		
Statesville.....	White	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. M. W. Hill.....	Color'd	.....		.....															
Wilson.....	White	2,000	3,500	6.0	6.8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
Dr. N. Anderson.....	Color'd	1,500		8.0																		
Hillsboro.....	White	600	1,000	20.0	24.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	1	1	1
Dr. D. C. Parris.....	Color'd	400		30.0																		
Monroe.....	White	1,900	2,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. W. C. Ramsay.....	Color'd	300		.....																	
Salem—S. W. Clinard, City Clerk.....	White	3,000	3,500
	Color'd	500																			

(a) Population not given with report.

BULLETIN

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THOMAS F. WOOD, M. D., *Secretary and Treasurer*, Wilmington.

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The Use of Water at Meals.

Opinions differ as to the effects of the free ingestion of water at meal times, but the view most generally received is probably that it dilutes the gastric juice and so retards digestion. Apart from the fact that the moderate delay in the process is by no means a disadvantage, as Sir William Roberts has shown in his explanation of the popularity of tea and coffee, it is more than doubtful whether any such effect is really produced. When ingested during meals, water may do good by washing out the digested food and by exposing the undigested part more thoroughly to the action of the digestive ferments. Pepsin is a catalytic body, and a given quantity will work almost indefinitely, provided the peptones are removed as they are formed. The good effects of water drunk freely before meals, has however, another beneficial result: it washes away the mucus which is secreted by the mucus membranes during the intervals of repose and favors peristalsis of the whole alimentary tract. The membrane thus cleansed is in a much better condi-

tion to receive food and convert it into soluble compounds. The accumulation of mucus is especially well marked in the morning, when the gastric walls are covered with a thick, tenacious layer. Food entering the stomach at this time will become covered with this tenacious coating, which for a time protects it from the action of the gastric ferments and so retards digestion. The tubular contracted stomach, with its puckered mucus lining and viscid contents, a normal condition in the morning before breakfast is not suitable to receive food. Exercise before partaking of a meal stimulates the circulation of the blood and facilitates the flow of the blood through the vessels. A glass of water washes out the mucus, partially distends the stomach, wakes up peristalsis and prepares the alimentary canal for the morning meal. Observation has shown that non-irritating liquids pass through the tubular stomach, and even if food be present they only mix with it to a slight extent. According to Dr. Leuf, who has made this subject a special study, cold water should be given to persons who have sufficient vitality to react and hot water to

others. In chronic gastric catarrh hot water before meals, and salt, is said in most cases to add to the good effect produced.—*British Medical Journal*; *The Dixie Doctor*.

Review of Diseases for September, 1890.

Bilious Fever—Caswell and Duplin counties.
Bronchitis—Haywood and McDowell counties.

Cholera (chickens)—Johnston county.

Cholera (hogs)—Cherokee, Johnston, Rowan and Catawba counties.

Diarrhœa—New Hanover, Pitt and Union counties.

Diphtheria—Buncombe, Caldwell, Catawba, Cleveland, Northampton, Orange, Randolph, Richmond, Rowan, Stokes, Wake and Yadkin counties.

Distemper—Caldwell and McDowell counties.

Dysentery—Chatham, Martin, Orange, Pitt, Randolph and Wayne counties.

Influenza—Randolph county.

Malarial Fever—Alamance, Columbus, Cumberland, Duplin, Edgecombe, Franklin, Gaston, Greene, Guilford, Halifax, Iredell, Johnston, Martin, Nash, New Hanover, Northampton, Onslow, Orange, Pitt, Randolph, Richmond, Rowan, Sampson, Union and Wayne counties.

Malarial Fever, Hæmorrhagic—Cabarrus, Martin, Northampton, Pender, Pitt, Randolph and Rowan counties.

Malarial Fever, Pernicious—Cabarrus, Iredell, Martin, New Hanover, Orange, Pender, Randolph and Rowan counties.

Measles—Buncombe, Chatham, Cumberland, Haywood, Iredell, Madison, Onslow, Orange, Randolph, Richmond, Stokes, Swain and Wake counties.

Meningitis—Pitt county.

Mumps—Gaston and Martin counties.

Pneumonia—Haywood, Montgomery and Nash counties.

Rheumatism—McDowell county.

Scarlatina—Cherokee, Durham and Rowan counties.

Tonsillitis—Orange county.

Typhoid Fever—Buncombe, Cabarrus, Caldwell, Catawba, Cherokee, Chowan, Cleveland, Columbus, Duplin, Edgecombe, Franklin, Gaston, Granville, Greene, Haywood, Iredell, Jackson, Johnston, Lincoln, Madison, Mitchell, Montgomery, Nash, New Hanover, Orange, Pender, Pitt, Randolph, Richmond, Rowan, Sampson, Stokes, Swain, Vance, Watauga, Yadkin and Yancey counties.

Typho-malarial Fever—Wayne county.

Whooping-cough—Martin, New Hanover, Richmond, Rowan, Stokes, Vance, Watauga and Yadkin counties.

Summary of Mortuary Statistics from Towns for September, 1890.

	White.	Col'd.	Total.
Aggregate population (13 towns)	55,164	49,262	104,426
Aggregate deaths	60	88	148
Temporary annual death rate per 1,000	12.8	21.4	16.8
Deaths under 5 years ..	----	----	63
<i>Causes of death.</i>			
Typhoid fever	5	10	6
Malarial Fever	6	6	10
Diphtheria	2	1	3
Measles	0	1	1
Pneumonia	0	1	1
Consumption	7	14	21
Brain diseases	5	1	6
Heart diseases	7	3	10
Neurotic diseases	1	4	5
Diarrhœal diseases	11	6	17
All other diseases	13	24	37
Accident and violence ..	0	2	2
Suicide	1	1	2
Still-born	4	14	18
Total	60	88	148

Summary of Reports from County Superintendents for Month of September, 1890.

Alamance—Dr. G. W. Long, Graham. The health of our people is better than usual at this season. We have had a few cases of malarial fever. The sanitary condition of public build-

ings is good, except jail, and it is as good as the building will allow.

Alexander—No Board of Health.

Ashe—No Board of Health.

Alleghany—No Board of Health.

Anson—No Board of Health.

Beaufort—Dr. W. A. Blount, Washington. No report.

Bertie—Dr. H. V. Dunston, Windsor. No report.

Bladen—Dr. N. Robinson, Elizabethtown. No epidemic has prevailed of any kind. The sanitary condition of the county is good—very good—best. That of the public buildings is moderately good.

Brunswick—No Board of Health.

Buncombe—Dr. H. B. Weaver, Asheville. The sanitary condition of the county is very good. Some catarrhal troubles in all portions. Measles, four cases; diphtheria, one case; and typhoid fever, four cases have been reported. No improvements needed to public buildings.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. S. Young, Concord. The sanitary condition of the county is good. There have been reported twenty-one cases of typhoid fever, and one each of pernicious and hæmorrhagic malarial fever. The sanitary condition of public buildings is good.

Caldwell—Dr. A. A. Kent, Lenoir. The general health of the county is much better than it was last month. There have been reported two cases of diphtheria and four of typhoid fever. There has been an epidemic of cattle distemper. The sanitary condition of poor house is good; that of the jail bad, with no efforts to improve it.

Camden—No Board of Health.

Carteret—Dr. M. F. Arendell, Morehead City. The general sanitary condition of the county is very good. That of public buildings is good.

Caswell—Dr. R. H. Williamson, Yanceyville. The general sanitary condition of the county has been good except that there has been an unusual fall of rain the past week. There have occurred a few cases of jaundice

and bilious fever. The sanitary condition of public buildings is good.

Catawba—Dr. J. M. McCorkle, Newton. The sanitary condition of the county has been good—not a great deal of sickness, though a few cases of diphtheria and typhoid fever have been heard of. The sanitary condition of public buildings is good.

Chatham—Dr. H. T. Chapin, Pittsboro. Measles have prevailed all over the county for the past month. There has been also some dysentery. The poor-house is in good condition, the buildings having recently received some much-needed repairs. There is but little sickness in the county at present. There has been an epidemic of cholera among chickens.

Cherokee—Dr. J. F. Abernathy, Murphy. The health of this county is fair. Fever of every kind is abating. One case each of scarlatina and typhoid fever have occurred. Hog cholera has been epidemic. The health of the inmates of the public buildings is good.

Chowan—Dr. R. W. Winborne, Barnitz. Four cases of typhoid fever have been reported. The sanitary condition of the county has been remarkably good this month.

Clay—No Board of Health.

Cleveland—Dr. O. P. Gardner, Shelby. Three cases each of diphtheria and typhoid fever have occurred. The sanitary condition of the county is good; also that of the public buildings.

Columbus—Dr. I. Jackson, Whiteville. There has been more typhoid fever for the past month than I have known for a year or two, and a fair show of malarial fever. Outside of those diseases, the sanitary condition has been good. The sanitary condition of the public buildings is good.

Craven—Dr. Leinster Duffy, New Berne. Typhoid and malarial fevers reported. Sanitary condition of public buildings good.

Cumberland—Dr. J. A. Hodges, Fayetteville. There has been a great many cases of malarial fever throughout the county during the month; also an epidemic of measles. Public buildings are all in good condition and thorough repair.

Currituck—No Board of Health.

Dare—No Board of Health.

Davidson—Dr. R. L. Payne, Jr., Lexington. The general sanitary condition of the county is excellent, as indicated by the comparative healthfulness of our people; yet, if I had the power, there is much low, undrained land I would have ditched. The sanitary condition of public buildings is good except jail. This is built with only one large room, containing iron cages, and it is almost (I might say) impossible to keep it clean. In addition, the inmates have only a few feet for exercise, and this is barbarous.

Davie—No Board of Health.

Duplin—Dr. J. W. Blount, Kenansville. The general sanitary condition of the county is good, there being but very little sickness. A few cases of typhoid and bilious and malarial fevers, but a smaller number than I have ever known at this season. The sanitary condition of public buildings is good.

Durham—Dr. N. M. Johnson, Durham. I have heard of four or five cases of sporadic scarlatina, but it seems not to spread. The sanitary condition of public buildings is good.

Edgecombe—Dr. J. M. Baker, Tarboro. Typhoid and malarial fevers have prevailed. The sanitary condition of the county is as good as usual.

Forsyth—Dr. D. N. Dalton, Winston. No report.

Franklin—Dr. E. S. Foster, Louisburg. Two cases of typhoid fever reported. A few cases of continued fever constitute all the sickness that I have heard of. I never knew a greater exemption from sickness of all kinds. The sanitary condition of public buildings is good.

Gaston—Dr. E. B. Holland, Dallas. Typhoid and malarial fevers and mumps have prevailed in most portions of the county. The sanitary condition of the county is fairly good; also that of public buildings.

Gates—No Board of Health.

Graham—No Board of Health.

Granville—Dr. J. M. Hays, Oxford. The sanitary condition of the county is good. The

continued fevers we have been having for the past month are undoubtedly typhoid of a mild type. I have heard of no deaths from it. The sanitary condition of public buildings is good.

Greene—Dr. E. H. Sugg, Snow Hill. Malarial fever has prevailed in the county, with a few cases of typhoid reported. The sanitary condition of the county is good; also that of public buildings.

Guilford—Dr. E. R. Michaux, Greensboro. Up to the middle of September we had considerable sickness, but since that time there has been a decrease. Simple and continued malarial fevers have been most prevalent. There have been but few deaths. Sanitary condition of public buildings is good, though the jail is still too crowded.

Halifax—Dr. A. B. Pierce, Weldon. Inter- and re-mittent fevers have prevailed in several portions of the county. The sanitary condition of the county is good, especially in the upper Roanoke, in and around Weldon and the penitentiary farms—due, as I conceive, to good drainage. The sanitary condition of the poor-house is good—repairs promised. Jail is in a bad condition for the safety of prisoners, and repairs are needed. It is better as to health than safety.

Harnett—No Board of Health.

Haywood—Dr. R. L. Allen, Waynesville. The sanitary condition of the county is good, although September has been a month of almost continuous rain, causing some bronchitis and pneumonia. There have been reported five cases of measles and two of typhoid fever. The poor-house is in very good condition. The jail is badly located, and with the incessant rain of the past month, the sanitary condition could not be very good, but we hope to report soon a new jail more favorably located.

Hertford—No Board of Health.

Hyle—No Board of Health.

Iredell—Dr. M. W. Hill, Statesville. The sanitary condition of the county has been quite good through the past month. I have heard of malarial fevers prevailing to some extent in portions of the county. Four cases of measles,

three of typhoid fever and one of pernicious malarial fever have been reported. Condition of public buildings unchanged.

Jackson—Dr. J. M. Candler, Dillsboro. The sanitary condition of the county was never better. Two cases of typhoid fever have been reported. The sanitary condition of the public buildings is good.

Johnston—Dr. L. L. Sasser, Smithfield. Malarial troubles have prevailed in these portions. The sanitary condition of the county is good. The medical profession report this the healthiest year in this section since 1880. There has been a slight epidemic of cholera among hogs and chickens. Four cases of typhoid fever reported. The sanitary condition of the public buildings is good.

Jones—Dr. C. B. Woodley, Trenton. No remarks made in this report on the nature of the prevailing diseases or the sanitary condition of the county.

Lenoir—No Board of Health.

Lincoln—Dr. W. L. Crouse, Lincolnton. Some typhoid fever has prevailed in some portions of the county. The sanitary condition of the county is good. Poor-house and jail are both healthy.

Macon—Dr. J. M. Lyle, Franklin. No report.

Madison—Dr. J. K. Hardwicke, Marshall. There have been reported 100 cases of measles and 20 of typhoid fever. With this exception the health of the county is good. The sanitary condition of the public buildings is good.

Martin—Dr. W. H. Harrell, Williamston. Whooping-cough and mumps have prevailed in several portions of the county. Malarial fevers and a mild form of dysentery have been quite prevalent. Three cases of pernicious and two of hæmorrhagic malarial fever have occurred.

McDowell—Dr. J. H. Gilkey, Marion. Rheumatism and bronchial catarrh have prevailed in some portions. Distemper has been epidemic and proved fatal in many cases. The sanitary condition of public buildings is good.

Mecklenburg—No Board of Health.

Mitchell—Dr. W. P. Upton, Bakersville. The sanitary condition of the county is very

good, other than a few cases of typhoid fever, of which 17 have been reported. The sanitary condition of the poor-house is good; that of the jail not so good. Efforts are being made for a better one.

Montgomery—Dr. W. A. Simmons, Troy. It is very healthy in all parts of the county—only a few cases of pneumonia and pleurisy reported. Two cases of typhoid fever have occurred. The public buildings are good enough for health.

Moore—Dr. Gilbert McLeod, Carthage. No report.

Nash—Dr. G. W. Lewis, Spring Hope. The sanitary condition of the county is good. I should say, with the exception of a few cases of typhoid fever and pneumonia. Fevers have prevailed in divers portions of the county. The public buildings are in good condition.

New Hanover—Dr. F. W. Potter, Wilmington. Two cases of whooping-cough, four of typhoid fever and one of pernicious malarial fever have occurred. Far as I can learn the sanitary condition of the county is good. There have been a few cases of diarrhoeal troubles in scattering places. The jail is well kept. The house of correction and poor-house will be ready for occupancy by the 1st of November next. In the meantime improvised buildings are used for the inmates and there have been several cases of malarial fever.

Northampton—Dr. H. W. Lewis, Jackson. Four cases of diphtheria and one of hæmorrhagic malarial fever have occurred. Malarial diseases have prevailed in all portions of the county. The sanitary condition of county and public buildings is good.

Onslow—Dr. J. L. Nicholson, Richlands. A few cases of measles have occurred. The sanitary condition of the county has been fairly good for September—not altogether so much malarial fever as we usually have at this season. The jail, as before reported, is kept in a cleanly condition, well ventilated and properly warmed. Poor-house unimproved—poorly suited for the purpose it serves—four small frame houses, unciled or plastered—no way of receiving light except by an open door or window.

Orange—Dr. D. C. Parris, Hillsboro. Three cases of measles, five of diphtheria, and one each of typhoid and pernicious malarial fever have occurred. Malarial fever has prevailed in all portions of the county. The last are mostly remittent and amenable to treatment. Diphtheria reported from southern part of the county but of mild type; measles from western and mild. Tonsillitis, catarrhal fevers and dysentery have occurred. The sanitary condition of public buildings is good.

Pamlico—No Board of Health.

Pasquotank—No Board of Health.

Pender—Dr. S. S. Satchwell, Burgaw. Ten cases of typhoid, three of pernicious and one of hemorrhagic malarial fever have been reported. The sanitary condition of the county is not improving as it should. It is difficult to induce our physicians to take proper interest in the science of health; they will not attend the meetings of the county board of health or of the county medical society.

Perquimans—No Board of Health.

Person—No Board of Health.

Pitt—Dr. B. T. Cox, Redalia. Typhoid and malarial fevers have been quite prevalent; several cases of meningitis reported. Diarrhoeal diseases among children very fatal. Few cases of dysentery heard from; one case of dengue reported and one of hemorrhagic malarial fever. The poor-house is in good sanitary condition.

Polk—Dr. Henry Shankle, Milk Springs. No report.

Randolph—Dr. J. W. Long, Randleman. Diphtheria, measles, typhoid fever and malarial fevers have prevailed to a limited extent in certain portions of the county. There have been reported 25 cases of measles, 3 of whooping-cough, 3 of influenza, 25 of diphtheria, 16 of typhoid fever, 3 of pernicious and 1 of hemorrhagic malarial fever, 6 of dysentery. The general sanitary condition of the county is reported as being good. That of public buildings is good. The following gentlemen reported for September: Dr. T. C. Doud, Dr. J. B. Douglass, Dr. A. L. McCauless, Dr. W. G.

Cashitt, Dr. S. W. Caddell, Dr. C. Waligny, Dr. C. Gray, Dr. R. J. Malone.

Richmond—Dr. J. M. Covington, Rockingham. Ten cases of measles, 14 of whooping-cough, two of diphtheria and seven of typhoid fever have been reported. Malarial fevers of mild type have prevailed in some portions of the county. The sanitary condition of the county is fair. That of the public buildings pretty good with the exception of the jail.

Robeson—Dr. R. F. Lewis, Lumberton. The health of the county is remarkably good—scarcely any sickness. The sanitary condition of public buildings is good.

Rockingham—No Board of Health.

Rowan—Dr. J. J. Summerell, Salisbury. Six cases of whooping-cough, three of scarlatina, nine of diphtheria, thirteen of typhoid, four of pernicious and two of hemorrhagic malarial fever reported. Malarial diseases have prevailed in many portions. Hog cholera reported from one section. The sanitary condition is about as usual—better than might be expected from the slack efforts to improve it. Malarial diseases have not been as universal as usual in September. We have but little such disease in Salisbury in these latter years. The sanitary condition of public buildings is good.

Rutherford—Dr. E. B. Harris, Rutherfordton. Nothing of interest to report.

Sampson—Dr. J. A. Stevens, Clinton. The general health of the people is fair. A few cases of typhoid and many of malarial fevers have occurred. The sanitary condition of poor-house is good; that of jail fair.

Stanly—No Board of Health.

Stokes—Dr. W. V. McCauless, Danbury. There have occurred ten cases of measles, about fifty of whooping-cough, six of diphtheria, and about fifteen of typhoid fever. Whooping-cough was scattered promiscuously over the county; the other diseases were reported from the southern part. The general sanitary condition of the county is fair. That of the poor-house and jail is as good as the structure of these buildings will permit. Buckets are used for the excreta of the jail, being removed once a day and replaced by other buckets.

There is only one window to each cell, small and placed high from the floor. The jail is whitewashed once a month in warm weather. Very little sickness in either institution.

Surry—No Board of Health.

Swain—Dr. R. L. Davis, Bryson City. The general sanitary condition of the county is good. Twenty-five cases of measles and three of typhoid fever have occurred. The sanitary condition of public buildings is only fairly good, with no steps toward improvement.

Transylvania—Dr. D. H. Farmer, Brevard. No report.

Tyrrell—Dr. Ab. Alexander, Columbia. No report.

Union—Dr. W. C. Ramsay, Monroe. Enterocolitis and remittent fevers have prevailed in some portions. The county has been remarkably healthy during the past month. The sanitary condition of the poor house is good; that of the jail still bad.

Vance—Dr. A. Cheatham, Henderson. The sanitary condition of the county is good. Two cases of whooping-cough and three of typhoid fever have occurred. The sanitary condition of the public buildings is good.

Wake—Dr. Jas. McKee, Raleigh. Nine cases of measles and four of diphtheria have occurred. Neither epidemic nor endemic diseases have prevailed in the city or county. The sanitary condition of the city and county is remarkably good; the people are enjoying the best of health, and as it comes so close upon the heels of furnishing the city fine water supply and a thorough system of sewerage, it seems proper to credit them with being a factor in bringing about this condition of things. The sanitary condition of public buildings is good.

Warren—Dr. P. J. Macon, Warrenton. No report.

Washington—No Board of Health.

Watauga—Dr. W. Councill, Boone. Ten cases of whooping-cough and four of typhoid fever have been reported. Whooping-cough prevailed in the western part of the county. There has been an epidemic of hog cholera. The sanitary condition of the county and public buildings is good.

Wayne—Dr. W. H. Cobb, Jr., Goldsboro. Remittent, intermittent and typho-malarial fevers have prevailed in town and county. Cases of simple continued fevers, dysentery, eczema and gastric fever have been reported. The general sanitary condition of public buildings is good.

Wilkes—No Board of Health.

Wilson—Dr. R. W. King, Wilson. The inmates of the poor-house are not well distributed in the various rooms. The negroes are crowded, but not so much as formerly. The whites have better room and ventilation. The sanitary condition of jail is good.

Yadkin—Dr. T. R. Harding, Yadkinville. Typhoid fever has prevailed in nearly all portions of the county. Whooping-cough and diphtheria reported. The sanitary condition of the county is bad. Cannot get the doctors to report but hear that typhoid fever is abating. Our towns ought to require the report of all births and deaths. Both jail and poor-house are in bad condition. There are no efforts to improve the former, but the latter will be improved next year.

Yancey—Dr. J. D. Ray, Burnsville. Three cases of typhoid fever reported. The general sanitary condition of the county is very good at present. The jail is not in very good condition, but think it will be improved soon.

Condition of Jails and Poor-houses by Counties for September, 1890.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....	4	700			39a	500		
Alexander.....								
Ashe.....								
Alleghany.....								
Anson.....								
Beaufort.....								
Bertie.....								
Bladen.....	2				5			
Brunswick.....								
Buncombe.....	22	b			20	b		
Burke.....								
Cabarrus.....	8	*	1	2	18	*	3	6
Caldwell.....	7	476		4	6	*	0	2
Camden.....								
Carteret.....	2	*			0			
Caswell.....	0				25	*	9	3
Catawba.....	4	720	1	1	28	800	8	10
Chatham.....	4	*	1	3	21	*	19	10
Cherokee.....	2	*			2	*		
Chowan.....	8	480	0	2	7	*	1	0
Clay.....								
Cleveland.....	18	684		12	26	997		7
Columbus.....	7	*		7	10	*		0
Craven.....	11	*	3	5	18	*	8	1
Cumberland.....	9	800	7	6	14	1,000	11	9
Currituck.....								
Dare.....								
Davidson.....	5	*	0	0	22	721	0	3
Davie.....								
Duplin.....	0				17	*		
Durham.....	11	1,000		5	35c	1,000		6d
Edgecombe.....	10	*		3	26	*		3
Forsyth.....								

(a) Includes 6 in house of correction. (b) Space given in square feet. (c) Includes 18 in house of correction. (d) Includes 4 in house of correction. * Space exceeds 1,000 cubic feet.

Condition of Jails and Poor-houses by Counties for September, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Franklin.....	4	*	.....	2	20	581	.....	1
Gaston.....	8	950	0	3	14	*	0	4
Gates.....								
Graham.....								
Granville.....	3	*			22	800		
Greene.....					11	1,000		1
Guilford.....	34	367			32	*		
Halifax.....	1				57			7
Harnett.....								
Haywood.....								
Henderson.....	1	*			6	*		3
Hertford.....								
Hyde.....								
Iredell.....	9				19			
Jackson.....	4	500	1	3	4	100	2	2
Johnston.....	4	*	2	1	16	1,000	6	4
Jones.....	1	*			5	*		
Lenoir.....								
Lincoln.....	6	*			24	400		6
McDowell.....	7	600	1	2	10	550	1	1
Macon.....								
Madison.....	4	717	0	0	6	*	0	0
Martin.....	5	900	1	2	13	600	2	3
Mecklenburg.....								
Mitchell.....								
Montgomery.....	2	*			12	*		
Moore.....								
Nash.....					31		8	6
New Hanover.....	20	550	8	10	21a		13b	10c
Northampton.....					38	800	16	12
Onslow.....	3	*		4	4	*		
Orange.....	1	512	0	0	30	2,048	12	14
Pamlico.....								

* Space exceeds 1,000 cubic feet. (a) Includes 4 in house of correction. (b) Includes 3 in house of correction. (c) Includes 2 in house of correction.

Condition of Jails and Poor-houses by Counties for September, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	3				3			
Perquimans.....								
Person.....								
Pitt.....								
Polk.....								
Randolph.....	15	450	5	12	29	525	9	10
Richmond.....	5				6			
Robeson.....	16	432			10	720		
Rockingham.....								
Rowan.....	15	510	5	6	19	*	3	3
Rutherford.....	4	*	2	5	26	996	6	4
Sampson.....	5				19			
Stanly.....								
Stokes.....	13	438	3	3	10	660	2	4
Surry.....								
Swain.....	0				0			
Transylvania.....								
Tyrrell.....								
Union.....	1	*			22	*		2
Vance.....	18	565	6	4	18	*	3	3
Wake.....	14	*			111a			
Warren.....								
Washington.....								
Watauga.....	3				7			
Wayne.....	4	*	2	3	13	973	2	2
Wilkes.....								
Wilson.....	6	*		1	24	*		
Yadkin.....	1		0	0	26		0	7
Yancey.....	3				0			

* Space exceeds 1,000 cubic feet. (a) Includes 54 in house of correction.

Meteorological Report for September, 1896.

STATIONS.	TEMPERATURE.										NO. DAYS.					Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	on which rain fell, including hail, snow and sleet.		
Chapel Hill.....																	
Chat'oga, Tenn.	71.5	90.0	8	55.0	18	35.0	.....	28.0	18	4.0	25	6	14	10	16	7.10	N. E.
Charleston, S. C.	76.0	90.0	8	58.0	29	32.0	.....	19.0	26	6.0	14	4	8	18	18	11.98	N. E.
Charlotte.....	70.8	91.0	8	50.0	29	41.0	.....	24.0	19	6.0	25	10	6	14	18	5.54	N. E.
Columbia, S. C.																	
Hatteras	76.0	84.0	11	67.0	1	17.0	.....	13.0	11	5.0	28	16	12	2	15	9.63	N. E.
Kitty Hawk.....	76.4	92.0	6	62.0	18	30.0	.....	23.0	19	5.0	29	4	17	9	16	3.99	S. W.
Knox'le, Tenn.	71.0	90.0	8	53.0	30	37.0	.....	26.0	18	5.0	25	6	11	13	13	3.83	N. E.
Lynchburg, Va.	70.0	90.0	7	47.0	25	43.0	.....	29.0	19	7.0	14	4	16	10	13	1.94	E.
Norfolk, Va.....	72.4	89.0	6	59.0	a	30.0	.....	20.0	4	3.0	28	6	15	9	13	6.64	N. E.
Raleigh.....	71.0	89.0	7	51.0	29	38.0	15.6	23.0	19	4.0	28	7	8	15	15	3.11	N. E.
Southport.....	75.0	86.0	7	54.5	18	27.5	.....	20.0	19	4.0	1	5	13	12	22	8.36	S. W.
Wake Forest.....																	
Wilmington	74.0	89.0	7	58.0	30	31.0	.....	21.0	20	7.0	28	7	12	11	19	8.19	N. E.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Asheville, N. C.						
Chattanooga, Tenn.	30.097	30.283	2	29.963	12	.320
Charleston, S. C.	30.075	30.227	5	29.948	28	.279
Charlotte, N. C.	30.120	30.320	2	29.970	16	.350
Columbia, S. C.						
Hatteras, N. C.	30.110	30.320	2	29.650	29	.390
Kitty Hawk, N. C.						
Knoxville, Tenn.	30.110	30.290	2	29.978	12	.312
Lynchburg, Va.	30.133	30.358	1	29.931	16	.427
Norfolk, Va.	30.126	30.348	2	29.890	26	.458
Raleigh, N. C.	30.121	30.335	2	29.958	26	.377
Southport, N. C.						
Wake Forest, N. C.						
Wilmington, N. C.	30.110	30.290	1	29.950	16	.340

(a) 28th and 29th.

Mortuary Report for September, 1890.

TOWNS AND REPORTERS.	Races.	Population.		Temporary Annual death rate per 1,000.		Diseases.																Total	
		By Races	Total.	By Races	Total.	Typhoid Fever.	Scarlet Fever.	Madural Fever.	Diphtheria.	Whooping-cough.	Measles.	Pneumonia.	Consumption.	Brain Diseases.	Heart Diseases.	Neurotic Diseases.	Diarrhoeal Diseases.	All other Diseases.	Accid't & Violence.	Suicide.	Still-Born.	By Races.	Deaths under 5 yrs.
Asheville.....	White	8,000	12,000	13.5	16.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	16	8
Dr. H. B. Weaver.....	Color'd	4,000		21.0		1	1						1				4				7		
Charlotte.....	White	7,000	13,000	8.6	21.2	1		1					4		1	3					6	24	2
Dr. J. Searr.....	Color'd	6,000		36.0		2									2	4					18		10
Durham.....	White	4,000	7,500	9.0	9.6								1		1			2			3	6	2
Dr. N. M. Johnson.....	Color'd	3,500		10.3					1				1					1			3		
Fayetteville.....	White	2,800	5,000	17.1	21.6			2				1				1					4	9	
Dr. J. A. Hodges.....	Color'd	2,200		27.2							1										5		
Goldsboro.....	White	2,500	5,000	19.2	9.6	1	1					1						1			4	4	1
Dr. W. H. Cobb, Jr.....	Color'd	2,500		0.0																	0		
Henderson.....	White	2,256	4,256	5.3	11.2													1	1		1	4	
Dr. A. Cheatham.....	Color'd	2,000		18.0														1			1	3	3
Newbern.....	White	3,000	7,000																				
S. Fulcher, City Clerk	Color'd	4,000																					
Oxford.....	White	1,600	3,300	7.5	10.9								1					1			1	2	3
Dr. J. M. Hays.....	Color'd	1,700		14.1														1					
Raleigh.....	White	8,000	15,000	22.5	20.0	2	1*						4	1	1	3	1				2	15	12
Dr. Jas. McKee.....	Color'd	7,000		17.1		2	1*						2		1	2	1				1	10	25
Salisbury.....	White	2,750	4,500	8.7	8.0							1						1			2	3	
Dr. J. J. Summerell.....	Color'd	1,750		7.0		1															1		
Tarboro.....	White	1,258	2,370	19.0	15.2										2						2	3	
Dr. J. M. Baker.....	Color'd	1,112		10.8		1															1		
Washington.....	White	2,400	4,000																				
Dr. S. T. Nicholson.....	Color'd	1,600																					
Wilmington.....	White	9,000	23,000	12.0	24.0		1					1	1			2	3		1		9	46	6
Dr. F. W. Potter.....	Color'd	14,000		31.7		2	2					1	5	1	1	3	13	1			8	57	19
Greensboro.....	White	4,000	6,000	6.0	6.0										1			1				2	3
Dr. E. R. Michaux.....	Color'd	2,000		6.0		1																	
Statesville.....	White																						
Dr. M. W. Hill.....	Color'd																						
Wilson.....	White	2,000	3,500	12.0	9.4							1				1					2	2	1
Dr. N. Anderson.....	Color'd	1,500		0.0																	0		
Hillsboro.....	White	600	1,000																				
Dr. D. C. Parris.....	Color'd	400																					
Monroe.....	White	1,900	2,200																				
Dr. W. C. Ramsay.....	Color'd	300																					
Salem—S. W. Clerk.....	White	3,000	3,500																				
Dr. J. Clerk.....	Color'd	500																					

* Bilious fever.

BULLETIN

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NO. 8.

Dampness.

It is not to be wondered at, says *American Engineering*, that the ancients regarded water as one of the elements of which all things are composed; for it is a truth demonstrated by modern chemistry that almost all natural objects contain a large proportion of water. Not only the plants that drink the summer showers, and show by their juicy succulence that they have incorporated the liquid streams into their substance, but the very soil into which these plants grow, and the solid rocks themselves, contain a large proportion of water. And, when we take away from animals, and even from man himself, the water which they contain, the amount of solid residue left behind is surprisingly small. It is true that, in all these cases, our senses give evidence of the presence of water, and do not require the corroborative testimony of chemical analysis. The moisture adhering to soil and to rocks, the juice of plants, and the blood and other fluids present in animals, all evidently acknowledge water as one of their chief constituents, and testify plainly to the presence of this liquid. But if we were

to suppose that water is always absent from those substances which to our senses give no evidence of its presence, we should commit a grave mistake. The dry and solid rock consists largely of water; and clay, though baked in the summer sun and dried in the summer breeze, cannot be robbed of all its moisture.

When the washerwoman buys fourteen pounds of transparent and apparently perfectly dry soda, she in reality pays for nine pounds of water, and gets but seven pounds of real soda, instead of the fourteen that she supposes she is getting. In short, water is present everywhere, in the dry wood that has for years formed our furniture, and even in the apparently perfectly dry dust that blows about our streets. Even the air, on a dry and sultry day when everything is parched, and when every breath seems to burn our throats, is charged with moisture. That warm and apparently dry air contains moisture is easily proved. An ice pitcher becomes covered with dew, not because the pitcher sweats through from the inside, as it is said to do, but because the water held in suspension by the hot air, even when apparently dry, contains a considerable

amount of moisture. Procure a small quantity of salt of tartar, a cheap drug that may be obtained from any apothecary, and, on a dry day, lay it on a common plate, and expose it to the atmosphere. In a short time it will have attracted from the air an amount of water sufficient to dissolve it, and it will have become converted into an apparently oily liquid, called by the old chemists, who did not fully understand the changes that take place, oil of tartar. The experiment will be more convincing, perhaps, if the salt with its containing vessel—which in this case, however, should be as light as possible—be placed in the pan of a moderately delicate pair of scales and carefully counterbalanced. In this case, the abstraction of the moisture from the air is rendered evident by the gradual increase in the weight of the salt and the descent of the pan in which it is placed.

If, then, moisture may be regarded as everywhere present, it becomes a nice point to determine when anything, such, for example, as the air we breathe, our houses, beds, clothes, etc., may be considered damp. To look for perfect dryness would be a vain search; nor would it do us much good if we could find it. Perfectly dry air would remove the moisture from our bodies so rapidly that we should wither as if smitten with the blast of the simoon. In such an atmosphere our throats would be parched as if in an oven, plants would wither, and nature become one universal desert. But, on the other hand, air that is too moist—that is to say, air that is really damp—produces effects that are equally disastrous. In such an atmosphere metals rust or corrode, vegetable matters rot, and the growth of fungi, such as mildew, mould, etc., is greatly promoted. Air in this condition is universally regarded as unwholesome; and it consequently becomes an important practical question to determine when our dwellings are really damp, and to distinguish between this condition and that in which bodies may be

considered as ordinarily and properly moist. Theoretically, the question is one that is not easily solved; but practically, it is not so difficult. Let us consider the case of the air, and find out, if we can, what the conditions are in which it may be said to be damp.

When perfectly dry air is brought into contact with bodies containing water in a free state, there instantly begins a strife for the possession of the liquid. Since water evaporates at all temperatures, even when it is frozen solid, the air surrounding the moist body becomes loaded with vapor, and, as it then gradually mixes with the air in the neighborhood, its place is supplied with dried air, until the whole air contained in the room or vessel has been saturated with water. The point at which this saturation occurs depends chiefly upon the temperature of the atmosphere. On a warm day the air is dry, not because there is little or no water present in it, but because, owing to its high temperature, it is capable of receiving and retaining a considerable additional quantity of moisture. In other words, air and everything else is capable of holding in its substance a certain definite quantity of water. If the amount of water present is so great that it appears in the form of moisture, or if the proportion even approaches the limit which the body is capable of holding, even before it becomes evident to our senses, we call it damp. Absolute dryness, then, is to be carefully avoided, and so is that degree of moistness in which objects part easily with the water which they hold. The evil effects of the first condition are to be seen in the dry and oppressive condition of an atmosphere heated by a stove or furnace; the results of an excess in the opposite direction are most clearly seen in unwholesome basements and damp and malarious cellars. The best means of determining and regulating the amount of moisture in our dwellings is an important one.

Review of Diseases for October, 1890.

Bronchitis—McDowell, Randolph, Union and Wayne counties.

Catarrhal Fever—Halifax and Wayne counties.

Cerebro-spinal Meningitis—Pitt County.

Diphtheria—Buncombe, Cabarrus, Catawba, Cleveland, Forsyth, Guilford, Iredell, Macon, Polk, Randolph, Rowan, Sampson, Stokes, Watauga and Yadkin counties.

Distemper—Guilford, McDowell and Onslow counties.

Dysentery—Martin, Randolph, Robeson and Wayne counties.

Erysipelas—Wayne County.

Hog Cholera—Bertie, Columbus, Johnston, Randolph and Watauga counties.

Influenza—Caswell, Onslow, Pitt and Randolph counties.

La Grippe—Green and Guilford counties.

Malarial Fever—Bladen, Chowan, Columbus, Cumberland, Duplin, Forsyth, Halifax, Johnston, Martin, Montgomery, Moore, Onslow, Orange, Pitt, Randolph, Richmond, Sampson, Warren and Wayne counties.

Malarial Fever, Hemorrhagic—Cabarrus, Montgomery, Pitt and Warren counties.

Malarial Fever, Pernicious—Pitt, Randolph, Union and Warren counties.

Measles—Cherokee, Henderson, Jackson, Madison, New Hanover, Randolph, Stokes and Swain counties.

Mumps—Martin County.

Pneumonia—Onslow, Randolph, Sampson and Wayne counties.

Rheumatism—Caswell County.

Scarlatina—Cherokee, Rowan and Wake counties.

Staggers—Randolph County.

Tonsillitis—Moore County.

Typhoid Fever—Buncombe, Cabarrus, Caldwell, Caswell, Catawba, Chowan, Columbus, Duplin, Forsyth, Franklin, Gaston, Granville, Henderson, Iredell, Johnson, Madison, Martin, Mitchell, Montgomery, Moore, New Hanover, Pitt, Randolph, Rowan, Rutherford, Sampson, Union, Vance, Warren and Yadkin counties.

Whooping-Cough—Cabarrus, Chatham, Cherokee, Cleveland, Forsyth, Halifax, Martin, Polk, Randolph, Richmond, Robeson, Stokes, Union and Yancey counties.

Summary of Mortuary Statistics from Towns for October, 1890.

	White.	Col'd.	Total.
Aggregate population (13 towns)	47,900	39,700	87,600
Aggregate deaths	54	59	113
Temporary annual death rate per 1,000	13.3	17.8	15.4
<i>Causes of death.</i>			
Typhoid fever	3	1	4
Malarial Fever	3	4	7
Diphtheria	0	1	1
Pneumonia	3	3	6
Consumption	5	10	15
Brain diseases	4	1	5
Heart diseases	6	3	9
Neurotic diseases	5	3	8
Diarrhoeal diseases	10	8	18
All other diseases	14	21	35
Still-born	1	4	5
Total	54	59	113

Summary of Reports from County Superintendents for Month of October, 1890.

Alamance—Dr. G. W. Long, Graham. The sanitary condition of the public buildings is about as good as usual; that of the county is good as far as I know. There is no epidemic among domestic animals and very little sickness among the people.

Alexander—No Board of Health.

Ashe—No Board of Health.

Alleghany—No Board of Health.

Anson—Dr. E. F. Ashe, Wadesboro. No report.

Beaufort—Dr. W. A. Blount, Washington. No report.

Bertie—Dr. H. V. Dunstan, Windsor. No epidemic has prevailed in any section. The sanitary condition of the county is very good. There has been an epidemic of hog cholera.

The sanitary condition of the public buildings is good.

Bladen—Dr. Newton Robinson, Elizabethtown. No epidemic has prevailed in any portion of the county. The sanitary condition of the county is very good except a few cases of malarial fever. The sanitary condition of the public buildings is not first class, and there are no steps toward an improvement.

Brunswick—No Board of Health.

Buncombe—Dr. H. B. Weaver, Asheville. Two cases of diphtheria, four of typhoid fever have been reported. The sanitary condition of the county is the best ever known. All the public buildings are in good condition.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. S. Young, Concord. Twelve cases whooping-cough, three of diphtheria, fourteen of typhoid fever and one of hæmorrhagic malarial fever have been reported. The sanitary condition of the county is good. All public buildings are in good condition.

Camden—No Board of Health.

Caldwell—Dr. A. A. Kent, Lenoir. Five cases of typhoid fever have been reported. The health of the county has been especially good, only a few mild cases of typhoid fever reported. The sanitary condition of the poor-house is good; not so at the jail—no efforts at improvement at either.

Carteret—Dr. M. F. Arendell, Morehead City. Our county is generally healthy. The public buildings are old, but comfortable and clean.

Caswell—Dr. R. H. Williamson, Yanceyville. Influenza, typhoid fever and inflammatory rheumatism have prevailed. The general sanitary condition of the county is good. That of the public buildings is good.

Catawba—Dr. J. M. McCorkle, Newton. The sanitary condition of the county is good. There have been occasional cases of diphtheria and typhoid fever. The public buildings are in good condition.

Chatham—Dr. H. T. Chapin, Pittsboro. There is some whooping-cough reported from one section. The sanitary condition of the public buildings is good.

Cherokee—Dr. J. F. Abernathy, Murphy. Eleven cases measles, twenty of whooping-cough and twenty-four of scarlatina have been reported. The general health of the county is good. Only one death has resulted from the scarlatina. The grand jury, at the Fall Term, recommended an improvement in the sewer arrangements around the jail and the construction of proper ducts to keep the lower floor clean and warm.

Chowan—Dr. R. H. Winborne, Barnitz. A few cases of intermittent and typhoid fevers have been reported. The sanitary condition of the county has never before been better at this season of the year. The public buildings are comfortable and clean.

Clay—No Board of Health.

Cleveland—Dr. O. P. Gardner, Shelby. The sanitary condition of the county is not good. Diphtheria and whooping-cough have prevailed, the former in the northeastern portion and the latter generally. The diphtheria is of a very malignant type. The sanitary condition of the public buildings is good.

Columbus—Dr. I. Jackson, Whiteville. Eight cases of typhoid fever reported. Hog cholera has been epidemic in some portions of the county. The sanitary condition of the county is good. Typhoid and malarial fevers have been the prevailing diseases. The sanitary condition of public buildings is good.

Craven—Dr. Leinster Duffy, New Berne. No report.

Cumberland—Dr. J. A. Hodges, Fayetteville. The health of the county at present is exceptionally good. There are no epidemic diseases. Malarial troubles seem to predominate. The poor-house and surrounding buildings are in nice condition. The farm and garden have yielded abundant crops and the inmates are healthy and cheerful. The jail during the present month has not been kept in its usual good condition.

Currituck—No Board of Health.

Dare—No Board of Health.

Davidson—Dr. R. L. Payne, Jr., Lexington. The general sanitary condition of the county is good. That of public buildings is unchanged since the last report.

Davie—No Board of Health.

Duplin—Dr. J. W. Blount, Kenansville. The sanitary condition of the county is very good—but very little sickness of any character. A few cases of bilious, intermittent and typhoid fevers, but few for the time of year. The sanitary condition of public buildings is good with but little sickness.

Durham—Dr. N. M. Johnson, Durham. The general sanitary condition of the county is good; also that of public buildings.

Edgecombe—Dr. J. M. Baker, Tarboro. No report.

Forsyth—Dr. D. N. Dalton, Winston. A few cases of whooping-cough and diphtheria have occurred; and some little typhoid fevers though it has not been epidemic. Some mild cases of intermittent and remittent fevers have been reported. The sanitary condition of the public buildings is good.

Franklin—Dr. E. S. Foster, Louisburg. Typhoid fever has prevailed in some portions, four cases being reported. There is very little sickness reported. The sanitary condition of the public buildings is good, and improvements are made as required.

Gaston—Dr. E. B. Holland, Dallas. Typhoid fever has prevailed in some portions. The sanitary condition of the county is good—very little sickness during the past month. Sanitary condition of the public buildings is good.

Gates—No Board of Health.

Graham—No Board of Health.

Granville—Dr. J. M. Hays, Oxford. Mild typhoid fever has prevailed in several portions of the county. The sanitary condition of the county is good—remarkably good. That of the public buildings is good.

Greene—Dr. E. H. Sugg, Snow Hill. La Grippe has prevailed in different portions of the county. The sanitary condition of the county is good. The public buildings are in good sanitary condition.

Guilford—Dr. E. R. Michaux, Greensboro. There have occurred a few cases of distemper among horses. There is very little sickness just now—a few cases of diphtheria, so reported—a considerable number of ulcerated sore throats; also several cases supposed to be

La Grippe. The various fevers have about disappeared. The sanitary condition of public buildings is quite good. Our jail is no longer so crowded as was the case.

Halifax—Dr. A. B. Pierce, Weldon. Malarial fevers to a limited extent have prevailed in several portions. The general sanitary condition of the county is good. Catarrhal fevers are beginning to be prevalent. A number of cases of whooping-cough have occurred. Remarkable exemption from malarial fevers on the Roanoke river. There has been some improvement in the jail as to its safety and comfort. No improvement at the poor-house. The general sanitary condition of the public buildings is good.

Harnett—No Board of Health.

Haywood—Dr. R. L. Allen, Waynesville. No report.

Henderson—Dr. W. B. Reese, Hendersonville. The sanitary condition of the county is good. Some continued fever lasting from one to three weeks—not fatal. One case of typhoid fever and one of measles reported. The sanitary condition of the jail is only tolerably good, but we will soon be in a new one.

Hertford—No Board of Health.

Hyde—No Board of Health.

Iredell—Dr. M. W. Hill, Statesville. The sanitary condition of the county is very good. Diphtheria and typhoid fever have occurred. Nothing being done at the public building since last report.

Jackson—Dr. J. M. Candler, Dillsboro. There has been a slight epidemic of measles. The sanitary condition of the county is very good. That of the public buildings is good.

Johnston—Dr. L. L. Sasser, Smithfield. Ten cases of typhoid fever have been reported. Continued fevers have prevailed in the vicinity of Benson. General sanitary condition of the county is good; there has been a slight epidemic of hog cholera. The sanitary condition of the public buildings is good—not a case of acute sickness in the jail or poor-house during the month.

Jones—Dr. C. B. Woodley, Trenton. The sanitary condition of the county is good; that of the public buildings is good.

Lenoir—No Board of Health.

Lincoln—Dr. W. L. Crouse, Lincolnton. No report.

Macon—Dr. J. M. Lyle, Franklin. One case diphtheria reported. No serious sickness has prevailed. The sanitary condition of the county is good. Also that of the public buildings.

Madison—Dr. J. K. Hardwick, Marshall. Twenty cases of measles, ten of scarlatina, and six of typhoid fever have occurred. The sanitary condition of the county is good. Very little sickness of a serious nature. The sanitary condition of the public buildings is good.

Martin—Dr. W. H. Harrel, Williamston. Three cases of typhoid fever reported. Mumps and whooping-cough have prevailed in several portions. There has been considerable malarial fever of an obstinate and low form, and an occasional case of dysentery.

McDowell—Dr. J. H. Gilkey, Marion. Distemper has been epidemic among cattle. The health and general sanitary condition of the county has been remarkably good, having had only a few cases of bronchitis and bronchial catarrh, caused by the sudden changes in the weather. The sanitary condition of the public buildings is very good.

Mecklenburg—No Board of Health.

Mitchell—Dr. W. P. Upton, Bakersville. Typhoid fever has prevailed in some portions. The sanitary condition of the county is fairly good. Five cases of typhoid fever have been reported, with two deaths. The sanitary condition of the poor-house is good; that of the jail not good.

Montgomery—Dr. W. A. Simmons, Troy. Four cases of typhoid and one of hæmorrhagic malarial fever has been reported. Bad colds are very common as they are always at this season. Some continued fever and one case of pneumonia reported.

Moore—Dr. G. McLeod, Carthage. Two cases of typhoid fever reported. The general sanitary condition of the county has been good. There have been a few cases of simple continued fever and tonsillitis. No deaths. The sanitary condition of public buildings is good.

Nash—No Board of Health.

New Hanover—Dr. F. W. Potter, Wilmington. Two cases of measles and four of typhoid fever have been reported. The sanitary condition of the county is good—very little sickness more than catarrhal troubles on the seashore. The jail is kept clean and there is no sickness of consequence. The new brick poor-house, with hospital and stockade, was turned over to the county commissioners on November 3d, 1890.

Northampton—Dr. H. W. Lewis, Jackson. No report.

Onslow—Dr. J. L. Nicholson, Richlands. Influenza, dysentery and malarial fevers have prevailed in all portions of the county. From the prevalence of these diseases in every section, would say that the sanitary condition is not good. Five cases of pneumonia reported. Ten cases of influenza, closely resembling *La Grippe*, reported. Sanitary condition of jail good. Poor-house well kept, but ventilation is bad and thoroughly unsuited as a home for invalids.

Orange—Dr. D. C. Parris, Hillsboro. Remittent and intermittent fevers have prevailed in all portions. The sanitary condition of the county is better than usual at this season. Prevailing diseases mild in form. Sanitary condition of the public buildings is good.

Pamlico—No Board of Health.

Pasquotank—No Board of Health.

Pender—Dr. S. S. Satchwell, Burgaw. As some evidence of sanitary improvement, drainage and good drinking-water continue to be more highly appreciated. The necessity of removing preventable causes of disease acquires new force and significance in this county, because of public approval of the aggressive warfare waged against the very defective and unhealthy system of sewerage in Wilmington by the Secretary of the State Board of Health and his associate editor of the *North Carolina Medical Journal*. Sanitation has progressed in this county and in the State just in proportion as these sanitary questions are agitated.

Perquimans—No Board of Health.

Person—No Board of Health.

Pitt—Dr. B. T. Cox, Redallia. Malarial and typhoid fevers have prevailed generally.

Two cases of pernicious and one of hæmorrhagic malarial fever have occurred. The sanitary condition of the county is fair. An isolated case of influenza has occurred; also one of cerebro-spinal meningitis. The sanitary condition of public buildings is fair.

Polk—Dr. H. D. Shankle, Milk Springs. Eight cases of whooping-cough and two of diphtheria have been reported. The sanitary condition of the county is good. That of public buildings is not as good as it should be, but will do very well.

Randolph—Dr. J. W. Long, Randleman. Four cases of measles, ten of whooping-cough, twenty-three of diphtheria, twenty-one of typhoid fever, four of pernicious malarial fever, and six of influenza have been reported. Pneumonia, typhoid, bronchitis, dysentery, diphtheria, coryza and intermittent have prevailed in certain portions. There have been limited epidemics of cholera among hogs and staggers in horses. The general sanitary condition of the county is reported very good. I have received reports from ten doctors for October. *This is good.* The sanitary condition of poor-house is good; that of jail only tolerable.

Richmond—Dr. J. M. Covington, Rockingham. Seven cases of whooping-cough have been reported. Malarial fevers of mild type have prevailed in some portions. The sanitary condition of the county is good, and also of the public buildings, with the exception of the jail.

Robeson—Dr. R. F. Lewis, Lumberton. Whooping-cough and dysentery have prevailed in some portions. The sanitary condition of the county is good. That of public buildings is fairly good. Improvements suggested.

Rockingham—No Board of Health.

Rowan—Dr. J. J. Summerell, Salisbury. Four cases of scarlatina, nine of diphtheria and three of typhoid fever have been reported. Very meagre reports from the country doctors and none from the city doctors. The sanitary condition of those portions from which reports have been received is not good. In this city the sanitary condition is pretty good—much better than it was a few years ago, and that naturally, for there have been no efforts made

in the way of sewerage. The surface drainage is good and nuisances are promptly removed. The jail is in as good sanitary condition as could be expected with the over-crowding that has been of latter months. I have called the attention of the commissioners to this often, but as yet there has been no movement towards remedying it.

Rutherford—Dr. E. B. Harris, Rutherfordton. Typhoid fever has prevailed in different portions of the county, four cases being reported. The sanitary condition of the county is as good as can be. Buildings and surroundings are in good condition and the inmates in good health and cheerful.

Sampson—Dr. J. A. Stevens, Clinton. The sanitary condition of the county is fairly good. Typhoid and malarial fevers have prevailed. A few cases of pneumonia and bronchial troubles. I hear of several cases of diphtheria in the upper part of the county. No reports from physicians. Jail as before reported. Poor-house in very good condition.

Stanly—No Board of Health.

Stokes—Dr. W. V. McCauless, Danbury. One case of measles, fifteen of whooping-cough and eight of diphtheria have been reported. Sanitary condition of the county is first-class. That of public buildings is as good as the wooden buildings will permit. Buckets are used for the excreta of the jail and are renewed once a day. Ventilation is tolerably good. The jail has just been renovated thoroughly.

Surry—No Board of Health.

Swain—Dr. E. M. Scruggs, Bryson City. Measles have prevailed generally.

Transylvania—No Board of Health.

Tyrrell—Dr. Ab. Alexander, Columbia. No sickness to report. The sanitary condition of public buildings is bad.

Union—Dr. W. C. Ramsay, Monroe. Eight cases of pernicious malarial fever have occurred. Typhoid fever, catarrh, bronchitis, etc., have prevailed in some portions of the county. There have been several deaths from typhoid fever. Several cases of whooping-cough have occurred. Sanitary condition of the poor-house is good; jail sorry.

Vance—Dr. A. Cheatham, Henderson. I have heard of three cases of typhoid fever. So far as I can learn the sanitary condition of the county is good. That of public buildings is good.

Wake—Dr. Jas. McKee, Raleigh. The city and county are in good sanitary condition. There have been four cases of scarlatina reported. All public buildings are in excellent sanitary condition. Quarters in jail, work-house and poor-house are cleanly kept and well ventilated.

Warren—Dr. P. J. Macon, Warrenton. Typhoid and malarial fevers and mumps have prevailed in all sections of the county. One case each of pernicious and hæmorrhagic malarial fever have occurred.

Washington—No Board of Health.

Watauga—Dr. W. B. Councill, Boone. A mild form of diphtheria has prevailed in one township—no deaths. There has been an epidemic of hog cholera. The sanitary condition of the county is good in every way. The public buildings are in good sanitary condition.

Wayne—Dr. W. H. Cobb, Jr., Goldsboro. Bronchitis and catarrhal fevers have prevailed. There have occurred some cases of intermittent and remittent fevers, dysentery, eczema, scabies, pneumonia, erysipelas and furuncles. For the first time in twenty-five years our jail is without a prisoner. The sanitary condition of public buildings is fair; some improvements will be made at the poor-house.

Wilkes—No Board of Health.

Wilson—Dr. R. W. King, Wilson. Sanitary condition of public buildings unchanged.

Yadkin—Dr. T. R. Harding, Yadkinville. Diphtheria and typhoid fever have prevailed, the latter in nearly all portions of the county. The sanitary condition of the county is as last reported.

Yancey—Dr. J. L. Ray, Burnsville. The sanitary condition of the county is moderately good at present. Two cases of whooping-cough have been reported. The sanitary condition of public buildings very good; hope for improvements soon.

Condition of Jails and Poor-houses by Counties for October, 1890.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....	0				38a	500		
Alexander.....								
Ashe.....								
Alleghany.....								
Anson.....								
Beaufort.....								
Bertie.....	3			0	15			0
Bladen.....	3				6			
Brunswick.....								
Buncombe.....	20				25	700		
Burke.....								
Cabarrus.....	12	920	2	4	19	*	2	6
Caldwell.....	3	960	3	2	6	*	0	2
Camden.....								
Carteret.....	1	*	1	1	0			
Caswell.....	1	800		1	24	1,000	9	3
Catawba.....	4	700	1	1	29	750	9	10
Chatham.....								
Cherokee.....	3	*	1	2	2	945		
Chowan.....	1				6			
Clay.....								
Cleveland.....	15	684		8	21	997		4
Columbus.....	10			10	8			0
Craven.....								
Cumberland.....	6	800	5	4	16	1,000	12	9
Currituck.....								
Dare.....								
Davidson.....	2		0	0	21	721	0	3
Davie.....								
Duplin.....					18	1,000		
Durham.....	3	1,000		2	33b	1,000		6c
Edgecombe.....								
Forsyth.....	2		1	0	21		5	4

* Cubic space exceeds 1,000 feet. (a) Includes 4 in house of correction. (b) Includes 17 in house of correction. (c) Includes 4 in house of correction.

Condition of Jails and Poor-houses by Counties for October, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Franklin.....	6	830	.....	2	20	530	.....	2
Gaston.....	3	*	0	1	13		0	3
Gates.....								
Graham.....								
Granville.....	6	*			22	810		
Greene.....	1	500		1	10	1,000		1
Guilford.....	20	624			33			
Halifax.....	3				53			
Harnett.....								
Haywood.....								
Henderson.....	1		0	0	6	*		4
Hertford.....								
Hyde.....								
Iredell.....	12	935			20	554		
Jackson.....								
Johnston.....	5	*	2	4	13	1,000	4	5
Jones.....					5			
Lenoir.....								
Lincoln.....								
McDowell.....	8	550	1	2	9	600	1	0
Macon.....	2	*	0	0				
Madison.....	1	717	0	0	6	*	0	0
Martin.....	5	1,000		3	14	500	1	1
Mecklenburg.....								
Mitchell.....								
Montgomery.....	3	330			12	900		
Moore.....	3	*	0	2	8	*	2	3
Nash.....								
New Hanover.....	11	600	8	6	20a	*	19b	10c
Northampton.....								
Onslow.....	4	*			5	*		
Orange.....	3	512	0	1	30	*	10	12
Pamlico.....								

* Space exceeds 1,000 cubic feet. (a) Includes 4 in house of correction. (b) Includes 3 in house of correction. (c) Includes 2 in house of correction.

Condition of Jails and Poor-houses by Counties for October, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	0				3		2	2
Perquimans.....								
Person.....								
Pitt.....					19			
Polk.....	3	*	0	2	2	900	0	2
Randolph.....	5				33	500	10	10
Richmond.....	5				7			
Robeson.....	15	460			10	720		
Rockingham.....								
Rowan.....	18	417	7	13	17		2	2
Rutherford.....	5	*		5	26	997		4
Sampson.....	2				21			
Stanly.....								
Stokes.....	10	810	2	1	10	660	2	1
Surry.....								
Swain.....								
Transylvania.....								
Tyrrell.....	0				2	*		0
Union.....	0				22			2
Vance.....	7	*			15	*		
Wake.....	14	*			62			
Warren.....	1	*			16	*		
Washington.....								
Watauga.....	2				7			
Wayne.....	0				12		2	2
Wilkes.....								
Wilson.....	8				28			
Yadkin.....	0				25			9
Yancey.....	4	*	1	3				

* Space exceeds 1,000 cubic feet.

Meteorological Report for October, 1896.

STATIONS.	TEMPERATURE.										NO. DAYS.					Prevailing wind.	
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.		Total rainfall, including hail, snow and sleet (in inches).
Chapel Hill.....																	
Chat'oga, Tenn.	59.5	84.0	12	33.0	28	51.0	.....	33.0	28	5.0	22	14	11	6	15	4.13	N.W.
Charleston, S. C.	67.0	89.0	6	41.0	28	48.0	.....	20.0	a	7.0	20	14	11	6	11	4.64	W.
Charlotte.....																	
Columbia, S. C.																	
Hatteras	65.0	81.0	7	44.0	28	37.0	.....	17.0	16	4.0	17	18	8	5	10	4.93	N.W.
Kitty Hawk.....	64.2	88.0	7	39.8	28	48.2	.....	23.0	16	5.0	3	8	14	9	13	3.71	N.W.
Knoxv'le, Tenn.	57.0	81.0	14	32.0	28	49.0	.....	28.0	18	2.0	22	10	15	6	14	3.69	W.
Lynchburg, Va..	57.5	81.0	10	34.0	31	47.0	.....	30.0	18	4.0	7	9	12	10	13	5.18	N.W.
Norfolk, Va.....	61.2	88.0	7	37.0	b	51.0	.....	24.0	18	0.0	4	12	11	8	11	3.96	N.W.
Raleigh	60.4	87.0	6	34.0	28	53.0	17.6	28.0	18	8.0	22	14	6	11	10	3.91	N.W.
Southport.....																	
Wake Forest.....																	
Wilmington	64.0	86.0	6	38.0	28	48.0	.....	24.0	18	6.0	22	18	6	7	10	4.88	N.W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Asheville, N. C.						
Chattanooga, Tenn.	30.060	30.304	31	29.615	29	.689
Charleston, S. C.	30.012	30.258	10	29.706	20	.552
Charlotte, N. C.						
Columbia, S. C.						
Hatteras, N. C.	29.980	30.300	10	29.520	26	.780
Kitty Hawk, N. C.						
Knoxville, Tenn.	30.059	30.312	10	29.553	29	.759
Lynchburg, Va.	29.986	30.348	9	29.391	29	.957
Norfolk, Va.	29.952	30.319	22	29.610	29	.709
Raleigh, N. C.	29.994	30.312	9	29.553	29	.759
Southport, N. C.						
Wake Forest, N. C.						
Wilmington, N. C.	30.000	30.290	10	29.640	29	.650

(a) 5th and 12th. (b) 28th and 30th.

Mortuary Report for October, 1890.

TOWNS AND REPORTERS.		Races.	Population.	Temporary Annual death Rate per 1,000.		DISEASES.														Total Deaths Deaths under 5 yrs.			
		By Races	Total.	By Races	Tot.	Typhoid Fever.	Scarlet Fever.	Malarial Fever.	Diphtheria.	Whooping-Cough.	Measles.	Pneumonia.	Consumption.	Brain Diseases.	Heart Diseases.	Neurotic Diseases.	Diarrhoeal Diseases.	All other Diseases.	Accident & Violence.	Suicide.	Still-Born.	By Races.	By Towns.
Asheville.....	White	7,000	10,000	15.4	19.2	1	1															9	16
Dr. H. B. Weaver.....	Color'd	3,000		28.0																			
Charlotte.....	White	7,000	13,000																				
Dr. J. Scarr.....	Color'd	6,000																					
Durham.....	White	4,000	7,000	6.0	8.6							1										2	3
Dr. N. M. Johnson.....	Color'd	3,000		12.0																			
Fayetteville.....	White	2,800	5,000	30.0	33.6								3		2	4					1	7	14
Dr. J. A. Hodges.....	Color'd	2,200		38.2											1	3							
Goldsboro.....	White	2,500	5,000	28.8	21.6							1			2	2		1				6	9
Dr. W. H. Cobb, Jr.....	Color'd	2,500		14.4				1									2					3	
Henderson.....	White	2,256	4,256	0.0	2.8																	0	1
Dr. A. Cheatham.....	Color'd	2,000		6.0											1							1	
Newbern.....	White	3,000	7,000																				
S. Fulcher, City Clk.....	Color'd	4,000																					
Oxford.....	White	1,700	3,300	7.0	10.9													1				1	3
Dr. J. M. Hays.....	Color'd	1,600		15.0														2				2	
Raleigh.....	White	8,000	15,000	10.5	16.0							1	1	2	1			5				7	20
Dr. Jas. McKee.....	Color'd	7,000		22.3				1					2	2	2	2	5					13	7
Salisbury.....	White	2,850	4,550	8.4	5.3								1									2	2
Dr. J. J. Summerell.....	Color'd	1,700		0.0												1						0	1
Tarboro.....	White	1,300	2,500																				
Dr. J. M. Baker.....	Color'd	1,200																					
Washington.....	White	2,400	4,000																				
Dr. S. T. Nicholson.....	Color'd	1,600																					
Wilmington.....	White	9,000	21,000	18.7	21.1		2					1	2	1	1	3	1	3				14	37
Dr. F. W. Potter.....	Color'd	12,000		23.0			3						3	4		2	2	10			2	23	16
Greensboro.....	White	4,000	6,000	9.0	6.0	1							1					1				3	
Dr. E. R. Michaux.....	Color'd	2,000		0.0																		0	3
Warrenton.....	White	1,200	2,000	10.0	6.0			1														1	1
Dr. P. J. Macon.....	Color'd	800		0.0																		0	
Wilson.....	White	2,000	3,500	6.0	3.4									1								1	1
Dr. N. Anderson.....	Color'd	1,500		0.0																		0	
Hillsboro.....	White	600	1,000	20.0	12.0										1							1	1
Dr. D. C. Parris.....	Color'd	400		0.0																		0	
Monroe.....	White	1,900	2,200																				
Dr. W. C. Ramsay.....	Color'd	300																					
Salem—S. W. Clerk.....	White	3,000	3,500																				
Dr. J. A. City Clerk.....	Color'd	500																					



BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

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SUBSCRIPTION FIFTY CENTS A YEAR.

H. T. BAHNSON, M. D., *Pres.*, Salem.

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VOL. V.

DECEMBER, 1890.

No. 9.

Responsibility of the State for Infectious Fevers.

A citizen will bring suit against the city of Salem to recover damages for a case of typhoid fever, alleged to have been caused by the offensive contents of a barn cellar on the adjoining estate. The plaintiff's wife was taken with the fever and is now dangerously ill. The attention of the Board of Health has been repeatedly called to this cellar, but the nuisance was not permanently abated until after the outbreak of the disease, when, by order of the Board of Health, the cellar was filled up.

—*N. Y. Med. Record.*

Are Children Happy?

People have a great deal to say about the happiness of childhood, but they are grown-up before they say it. For, after all, children have a harder life of it than their elders do. To begin with, there is the constant discipline life gives them in such Scripture measure—the things they want and are forbidden to have; the things they do in ignorance to be punished

for without clearly understanding the offence; the imaginative terrors of darkness, and evil spirits and unknown powers, to say nothing of an offended Deity who is angry when they eat too much bread and jam. And then there is the school, with its hard discipline of having to study Chapter XX in the big book of learning, which is the long division, when their legs are aching to be at Chapter XLI, which is playing "tag" on the village green. And there is their wonderful misapprehension of their elders and the vague but awful sense of suffering they have at hearing impending calamities spoken of, which they can apprehend as sharply as their elders, but which they see no earthly means of escaping—the possible death of a dear one, a coming scourge of disease, the loss of money, or the end of the world. And there is—oftener, perhaps, than all else—the sharp grief of being misunderstood; of having their thoughtlessness and ignorance taken for willful disobedience; of feeling their natural fearlessness taken for perverseness and forwardness; of having even their very love thrust aside because it is manifested at an inconvenient moment—of finding themselves, in short, in a

great big world, where everything is to be learned, and where the only persons who can teach them are most given to bejuggling and bewildering them.—*The Sun*.—*N. Y. Med. Record*.

CHARCOAL IN FILTERS has been much recommended for its remarkable power of absorbing organic matter. This porosity renders charcoal, however, whether vegetable or animal, but especially the latter, the most dangerous of all materials for continued use. It becomes saturated with organisms and the matter they feed upon; it cannot be cleaned; and, if not daily changed entire or subjected to a red heat—an expense that is out of the question—it will eventually become about as bad as a dead cat in the filter. An admixture of finely-granulated coke is useful, by its lightness, in forming spontaneously a top screen to receive the first straining from the water; and when the united mass of sand and coke is violently agitated for cleansing, with a full pressure of water, the interaction of the contrasted materials has an advantage in scouring effect. At the same time, the coke does not seem to be retentive or receptive of any impurities, as its grains are very hard and sharp. No filth-absorbing material should ever be tolerated in a filter.—*The Sanitary Era*.

Effect of Corsets on Monkeys.

Some experiments have recently been made as to the effect of tight lacing on monkeys. Female monkeys were put into plaster of Paris jackets, to imitate stays, and a tight bandage put around the waist to imitate a petticoat band. Several died very quickly, and all showed signs of injuries resulting from the treatment. Of course, with the human being, generations of use have bred a tolerance, so that while we do not find such immediate fatal results, those who are capable of forming an opinion yet know that the constriction of the vital organs of the body caused by tight lacing is continually working mischief within.—*British Med. Journal*.—*The Medical Age*.

Review of Diseases for November, 1890.

Bronchitis—Craven, Guilford, McDowell, Pitt, Sampson, Wayne.

Catarrhal Fever and Influenza—Alamance, Davidson, Halifax, McDowell, Orange, Richmond, Wayne.

Diphtheria—Alleghany, Buncombe, Cabarrus, Craven, Davidson, Polk, Randolph, Rowan, Rutherford, Sampson, Stokes, Wake, Warren.

Distemper—Polk.

Dysentery—Wayne.

Furuncles—Wayne.

Hog Cholera—Moore, Polk, Randolph, Sampson.

Jaundice—Duplin, Guilford, New Hanover.

Malarial Fever—Bertie, Craven, Greene, Lincoln, New Hanover, Orange, Pender, Pitt, Richmond, Sampson, Warren, Wayne.

Malarial Fever (Hemorrhagic)—Warren.

Measles—Cumberland, Henderson, Jackson, Montgomery, Polk, Richmond, Stokes, Wake.

Mumps—Warren.

Pleurisy—Wayne.

Pneumonia—Chatham, Craven, Duplin, Greene, Orange, Pitt, Rowan, Sampson.

Rheumatism—Guilford.

Scabies—Wayne.

Scarlatina—Buncombe, Edgecombe, Robeson, Wake.

Staggers—Iredell.

Typhoid Fever—Alexander, Bertie, Cabarrus, Caldwell, Caswell, Columbus, Craven, Davie, Duplin, Forsyth, Franklin, Henderson, Iredell, Macon, Mitchell, Montgomery, Nash, Pender, Pitt, Randolph, Rowan, Rutherford, Sampson, Stokes, Tyrrell, Union, Vance, Wake, Warren, Yadkin, Yancey.

Typho-malarial Fever—Wayne.

Whooping-Cough—Alleghany, Cabarrus, Chatham, Cleveland, Greene, Pitt, Polk, Stokes, Wayne, Yadkin.

**Summary of Mortuary Statistics from Towns
for November, 1890.**

	White.	Col'd.	Total.
Aggregate population (12 towns)	45,214	37,112	82,326
Aggregate deaths.....	48	61	109
Temporary annual death- rate per 1,000.....	12.7	19.7	15.9
Deaths under five years, 31.			
<i>Causes of death.</i>			
Typhoid fever.....	6	2	8
Scarlet fever.....	1	0	1
Malarial fever.....	0	4	4
Diphtheria.....	1	0	1
Pneumonia	2	1	3
Consumption.....	4	14	18
Brain diseases	0	3	3
Heart diseases.....	7	5	12
Neurotic diseases	4	3	7
Diarrhoeal diseases...	1	4	5
All other diseases....	12	22	34
Accident	3	0	3
Still-born	7	3	10
Total.....	48	61	109

**Summary of Reports from County Superin-
tendents for Month of November, 1890.**

Alamance—Dr. G. W. Long, Graham. Health of the county good, except some cases of influenza. The condition of public buildings very much as heretofore, except some improvement in the jail.

Alexander—Dr. J. B. Watts, Taylorsville. Typhoid fever has prevailed in the southern part of the county, five cases being reported. With this exception, the sanitary condition of the county is good; that of public buildings is good. The poor-house has lately been improved by adding one room.

Ashe—No Board of Health.

Alleghany—Dr. George Doughton, Sparta. Diphtheria has prevailed in some portions of the county, ten cases being reported; also one case of whooping-cough. The sanitary condition of the county is good; that of the jail is good; of the poor-house bad.

Anson—Dr. E. F. Ashe, Wadesboro. No report.

Beaufort—Dr. W. A. Blount, Washington. No report.

Bertie—Dr. H. V. Dunston, Windsor. Isolated cases of typhoid fever and malarial fever have prevailed in a few places. The sanitary condition of the county is good; that of the public buildings is first-class, and a new Board will keep them so.

Bladen—Dr. Newton Robinson, Elizabeth-town. No epidemic has prevailed in any portion. The sanitary condition of the county is excellent—the best ever known; that of the public buildings is not first-class, and no hope of any improvement.

Brunswick—No Board of Health.

Buncombe—Dr. H. B. Weaver, Asheville. Two cases of scarlatina and four of diphtheria have been reported. The sanitary condition of the county is very good everywhere. Public buildings are all in good condition.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. S. Young, Concord. Whooping-cough, diphtheria and typhoid fever have prevailed in almost all portions of the county. The sanitary condition of the county and public buildings is good.

Camden—No Board of Health

Caldwell—Dr. A. A. Kent, Lenoir. The health of the county for the past month unusually good. Six cases of typhoid fever have been reported. The condition of the poor-house is good. There are no prisoners in the jail.

Carteret—Dr. M. F. Arendell, Morehead City. The sanitary condition of the county is quite satisfactory; also that of the public buildings.

Caswell—Dr. R. H. Williamson, Yanceyville. The general sanitary condition of the county is good, but a few cases of typhoid fever, colds and sore throat have occurred. The sanitary condition of the public buildings is good.

Catawba—Dr. J. M. McCorkle, Newton. The general sanitary condition of the county is good; that of the public buildings is very good. A new jail in the near future is almost a certainty.

Chatham—Dr. H. T. Chapin, Pittsboro. The sanitary condition of the county is good, a few cases (20) of whooping-cough and pneumonia being reported. A considerable number of horses have died suddenly recently, but not having seen any of the cases, cannot give the nature of the trouble. The public buildings are in first-rate condition.

Cherokee—Dr. J. F. Abernathy, Murphy. The county seems at present to be entirely free from all kinds of fever, and there are no epidemic diseases prevailing. No change has been made in the public buildings, nor is any likely to be made soon. The town council have called for an expression of the desire of the people in regard to the issuance of bonds for the improvement of the sanitary condition of the streets, which I hope and believe the citizens will sanction.

Chowan—Dr. R. H. Winborne, Barnitz. No report.

Clay—No Board of Health.

Cleveland—Dr. O. P. Gardner, Shelby. Whooping-cough has prevailed in all portions of the county. Diphtheria has entirely disappeared. The general health of the county is excellent. The sanitary condition of the public buildings is good.

Columbus—Dr. I. Jackson, Whiteville. The general sanitary condition of the county is very good; two cases of typhoid fever reported; that of the public buildings is exceptionally good.

Craven—Dr. Leinster Duffy, New Berne. Intermittent, malarial and typhoid fevers, diphtheria, bronchitis and pneumonia have occurred. The sanitary condition of our city and county, generally, is good. The public buildings are well kept.

Cumberland—Dr. J. A. Hodges, Fayetteville. The county is remarkably healthy—only a few cases of measles reported. The public buildings are in very good condition and kept cleanly.

Currituck—No Board of Health.

Dare—No Board of Health.

Davidson—Dr. R. L. Payne, Lexington. The sanitary condition of the county is good. A few cases of typhoid fever, two or three of diphtheria, and several cases of catarrhal fever have occurred within my knowledge. No change in the condition of public buildings since last report.

Davie—No Board of Health.

Duplin—Dr. J. W. Blount, Kenansville. There was considerable sickness in the county; several cases of typhoid fever and pneumonia; jaundice almost an epidemic in some portions. The poor-house is in good sanitary condition.

Durham—Dr. N. M. Johnson, Durham. The sanitary condition of the county is very good. The public buildings are in a healthful condition.

Edgecombe—Dr. J. M. Baker, Tarboro. Scarlet fever has prevailed in some portions; quarantine regulations are rigidly enforced, and will doubtless check its further spread.

Forsyth—Dr. D. N. Dalton, Winston. The sanitary condition of the county is good—less sickness than for months. A few cases of typhoid fever have occurred. The sanitary condition of the public buildings is good.

Franklin—Dr. F. S. Foster, Louisburg. Two cases of typhoid fever have been reported. The sanitary condition of the county was never better. Every physician I meet reports an excellent state of health in his practice. Sanitary condition of the public buildings very good.

Gaston—Dr. E. B. Holland, Dallas. Very little sickness during November. The sanitary condition of the public buildings is good.

Gates—No Board of Health.

Graham—No Board of Health.

Granville—Dr. J. M. Hays, Oxford. No report.

Greene—Dr. E. H. Sugg, Snow Hill. The sanitary condition of the county is good. Malarial fever and pneumonia have prevailed, and three cases of whooping-cough reported. The sanitary condition of public buildings is good.

Guilford—Dr. E. R. Michaux, Greensboro. The sanitary condition of the county is splendid. Scarcely any sickness now, except a few

cases of rheumatism and acute bronchitis. Have had almost an epidemic of jaundice (hepatogenous variety), and there are still a few cases. The sanitary condition of the public buildings is quite good, excepting the jail. The jail would be kept fairly clean but for the poor arrangements for getting rid of the excrement. The pipes for carrying this off are entirely too small, and consequently overflow, and there is no arrangement for flushing the pipes. This trouble was brought to the attention of the Grand Jury by me, but there has been no move to remedy it.

Halifax—Dr. A. B. Pierce, Weldon. Catarrhal fevers have prevailed in several portions of the county. The general sanitary condition of the county has been good. Have been singularly exempt from malarial fevers, but have had some malarial complications with catarrh. The sanitary condition of the public buildings is not very good. There have been some repairs to the jail, but none to the poor-house.

Harnett—No Board of Health.

Haywood—Dr. R. L. Allen, Waynesville. No report.

Henderson—Dr. W. B. Reese, Hendersonville. The sanitary condition of the county is good—never an autumn closed here with less sickness, according to population. Four cases of measles and one of typhoid fever have been reported. The sanitary condition of the public buildings is good. Our new jail will be finished by next month.

Hertford—No Board of Health.

Hyde—No Board of Health.

Iredell—Dr. M. W. Hill, Statesville. Three cases of typhoid fever have been reported. The sanitary condition of the county is remarkably good. There is a disease among horses that is proving fatal in many cases. I pronounce it a brain irritation—the laity call it "blind staggers." The sanitary condition of the public buildings is as formerly reported, except some improvement at the poor-house.

Jackson—Dr. J. M. Candler, Millsboro. Measles of very mild form has prevailed. The

sanitary condition of the county is good; that of public buildings good. No fevers of consequence.

Johnston—Dr. L. L. Sasser, Smithfield. No report.

Jones—Dr. C. B. Woodley, Trenton. The sanitary condition of the county, so far as I can learn, is good. I have not been able to get any reports from other physicians. The public buildings are in good sanitary condition.

Lenoir—No Board of Health.

Lincoln—Dr. W. L. Crouse, Lincolnnton. Malarial fevers have prevailed to a small extent in some portions. The sanitary condition of the county is good. Our jail and poor-house are both well kept; the inmates are healthy.

Macon—Dr. J. M. Lyle, Franklin. The sanitary condition of the county is good. Three cases of typhoid fever have been reported.

Madison—Dr. J. K. Hardwicke, Marshall. The sanitary condition of the county is good. Our incoming Board of County Commissioners think, in their wisdom, that they can save expense to the county by discontinuing the pay to the Superintendent of Health; therefore, this will be my last report. There has not been a death or serious case of sickness in the poor-house or jail during my term of service.

Martin—Dr. W. H. Harrell, Williamston. No report.

McDowell—Dr. J. H. Gilkey, Marion. Several catarrhal affections have prevailed in some portions. We have had a few cases of bronchitis and bronchial catarrh, with but very little sickness of any other character. The sanitary condition of the county is very good; also, that of the public buildings.

Mecklenburg—No Board of Health.

Mitchell—Dr. W. P. Upton, Bakersville. The sanitary condition of the county is good. There have been reported five cases of typhoid fever, with one death. The sanitary condition of the poor-house is good; that of the jail bad. I think we will have a new one before a great while.

Montgomery—Dr. W. A. Simmons, Troy. Ten cases each of measles and typhoid fever

have been reported. The health of the county is remarkably good. The measles in the eastern part is not extensive.

Moore—Dr. Gilbert McLeod, Carthage. There have been a few cases of hog-cholera reported. There has been less sickness during the past month than for many years. No deaths among adults, and only one infant died. The sanitary condition of the public buildings is good, except that some repairs are needed at the poor-house. The County Commissioners have ordered the repairs done immediately.

Nash—Dr. G. W. Lewis, Spring Hope. Typhoid fever has prevailed in some portions of the county. The sanitary condition of the county and public buildings is good. We have a good brick jail, well heated in winter and well ventilated in summer. The buildings at the poor-house are good and comfortable.

New Hanover—Dr. F. W. Potter, Wilmington. I stated in my October report that the poor-house and house of correction had been turned over to the commissioners by the contractor. The superintendent's house is a two-story brick building with four rooms on each floor. All the rooms contain heaters and chimneys or fire-places, two wash-stands above and two below; in end is a dining-room, one for white males and the other for white females; each has two heaters and wash-stands. The white wards have twelve rooms—six for males and six for females; each room is 12 x 14 feet, ten feet pitch, with fire-place or heater. The colored wards are separated from the white, but arranged similarly. The stockade contains nine rooms, heated by warm air from the furnace under the superintendent's house. Each cell is 12 x 8 $\frac{3}{4}$ feet and ten feet pitch. Each has a grated window, and is well ventilated. The kitchen has four rooms—two, 14 x 15 x 10, and two 11 $\frac{1}{2}$ x 11 $\frac{3}{8}$ x 10 feet; has a large range with large tin water-heater and tubs, etc., for washing. The hospital contains three rooms—two of them 18 x 15 x 10, and the other 12 $\frac{3}{4}$ x 11 x 10. All the buildings have piazzas. Two cisterns, each 200 barrels capacity, supply the drinking-water. Jaundice has prevailed in the suburban portions of the

city. There has been a good deal of malarial troubles in all the townships of the county.

Northampton—Dr. H. W. Lewis, Jackson. No report.

Onslow—No Board of Health.

Orange—Dr. D. C. Parris, Hillsboro. Catarrhal fevers have prevailed in nearly all portions. The sanitary condition of the county is not good—influenza and remittent fevers have prevailed; the latter mild, but the former severe and sometimes followed by pneumonia. The sanitary condition of the public buildings is good.

Pamlico—No Board of Health.

Pasquotank—No Board of Health.

Pender—Dr. S. S. Satchwell, Burgaw. The general health of the county is good; some malarial and typhoid cases. New buildings for a county poor-house are being constructed. I am insisting on all the modern improvements for sanitation, and am anxious for a separate hospital for the insane.

Perquimans—No Board of Health.

Person—No Board of Health.

Pitt—Dr. B. T. Cox, Redallia. There has been very little sickness in the county during the month, bronchitis and malarial fevers being the most prevalent diseases. A few cases of whooping-cough have been seen, and one each of pneumonia and typhoid fever. But little sickness in the public buildings during the month.

Polk—Dr. Henry Shankle, Mill's Springs. Diphtheria and whooping-cough have prevailed in the eastern part of the county. There has been an epidemic of distemper and cholera among domestic animals. The sanitary condition of the county is good, except for the severe cough of an epidemic character and a few deaths from diphtheria. The diphtheria was of a very violent type. All the young children died, owing to the fruitless efforts at treatment, as evidenced by the rapid recovery of the older ones. Two cases of measles reported. The jail is nicely kept; the stoves by which it is warmed are not in good order, making it liable to catch on fire at any time. The paupers are kept at a private farm-house.

Randolph—Dr. J. W. Long, Randleman. Diphtheria and typhoid fever have prevailed to a limited extent. There has been an epidemic of hog-cholera. If, by the term "general sanitary condition" is meant the cleanliness of hog-pens, water-closets, etc., I must say it is *bad*. That we have so little sickness is due, I think, to the fact that our houses are "scattered upon a thousand hills." This holds true, even in our county towns; an abundance of room is the only thing that saves us from pestilence. Our new Sheriff, Mr. R. R. Ross, has just come into office, and his first official act is to put in a new jailer and give the jail and premises a thorough cleaning-up. That he consulted the Superintendent of Health as to the best thing to be done for the jail, is a step in the right direction.

Richmond—Dr. J. M. Covington, Rockingham. Malarial and catarrhal fevers of mild type and measles have prevailed in some portions of the county. The sanitary condition of the county is good; that of the public buildings, with the exception of the jail, is fair.

Robeson—Dr. R. F. Lewis, Lumberton. The sanitary condition of the county is very good. There was reported from Maxton one case of scarlatina. Public buildings are in fair condition—improvements suggested.

Rockingham—No Board of Health.

Rowan—Dr. J. J. Summerell, Salisbury. Diphtheria and typhoid fever have prevailed in some portions of the county. The sanitary condition of the county is good. Dr. Poole reported pneumonia. There has not been the usual amount of malarial disease. It has been dry for six weeks, and the most delightful weather has prevailed. The sanitary condition of the public buildings is good. There are some improvements that could be made, but it would cost money, and our Commissioners are not disposed to incur any further expense yet.

Rutherford—Dr. E. B. Harris, Rutherfordton. The sanitary condition of the county is good. One case of diphtheria and two of typhoid fever were reported. Public buildings are still in good condition.

Sampson—Dr. J. A. Stevens, Clinton.

There has been an epidemic of hog-cholera. The sanitary condition of the county is fair. I hear of several cases of diphtheria in the upper part of the county; some malarial and a few of typhoid fevers. Bronchial troubles quite common, with two cases of pneumonia. The poor-house is in excellent condition; the jail not so good as it should be.

Stanly—No Board of Health.

Stokes—Dr. W. V. McCauless, Danbury. The sanitary condition of the county is good. Whooping-cough has prevailed in the north-western part of the county, and diphtheria in the southern part mostly. There have been reported ten cases of measles, fifteen of diphtheria, eight of whooping-cough, and two of typhoid fever. The sanitary condition of the public buildings is as good as the nature of the buildings will admit of. Buckets are used for the excreta of the jail, and removed once daily. Ventilation is tolerably good.

Surry—No Board of Health.

Swain—No Board of Health.

Transylvania—No Board of Health.

Tyrrell—Dr. Ab. Alexander, Columbia. The general sanitary condition of the county is good. No specific disease has prevailed. Three cases of typhoid fever reported. The sanitary condition of the jail is bad.

Union—Dr. W. C. Ramsay, Monroe. A few cases of typhoid fever have occurred in some portions of the county. With this exception and a few cases of catarrhal affections of the lungs, the sanitary condition is good. Sanitary condition of the poor-house good; that of the jail continues indifferent.

Vance—Dr. A. Cheatham, Henderson. The sanitary condition of the county is good in all the sections that I have heard from. Two cases of typhoid fever reported. The sanitary condition of the public buildings is good.

Wake—Dr. Jas. McKee, Raleigh. The sanitary condition of the county is universally good. There have been reported three cases of measles, four of scarlatina, two of diphtheria, and one of typhoid fever. The condition of public build-

ings is good. Every effort is made in the way of modern improvement.

Warren—Dr. P. J. Macon, Warrenton. The sanitary condition of the county is very good. Mumps and remittent fever have prevailed in Warrenton and Shocco. One case of diphtheria, one of hemorrhagic malarial fever, and several of typhoid fever have occurred. The sanitary condition of the public buildings is good.

Washington—No Board of Health.

Watauga—Dr. W. B. Councill, Boone. No report.

Wayne—Dr. W. H. Cobb, Jr., Goldsboro. Scabies and furuncles have prevailed in many portions of town and country. Several cases of whooping-cough have been reported; also catarrhal fever, dysentery, pleurisy, bronchitis, malarial and typho-malarial fevers. The gen-

eral health of the county is very good. The sanitary condition of the public buildings is fairly good.

Wilkes—No Board of Health.

Wilson—Dr. R. W. King, Wilson. The sanitary condition of the poor-house is ordinarily good, and efforts are being made to improve it; that of the jail is good. Two deaths at the poor-house.

Yadkin—Dr. T. R. Harding, Yadkinville. Whooping-cough and typhoid fever have prevailed in nearly all portions of the county.

Yancey—Dr. J. L. Ray, Burnsville. No epidemic of consequence has prevailed in the county. The sanitary condition of the county is very good. Three cases of typhoid fever reported. The sanitary condition of the public buildings is only moderately good, and there are no efforts at improvement.

Condition of Jails and Poor-houses by Counties for November, 1890.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....	0				38	500		
Alexander.....	0				10	440	0	2
Ashe.....								
Alleghany.....	0				1			
Anson.....								
Beaufort.....								
Bertie.....	2				15			
Bladen.....	3				6			
Brunswick.....								
Buncombe.....	20	800			30	700		
Burke.....								
Cabarrus.....	13	*	4	4	22	*	5	8
Caldwell.....	0				6	*	1	2
Camden.....								
Carteret.....	1	*			0			
Caswell.....	2	1,000		0	25	450	9	3
Catawba.....	3	1,000	1	1	29	775	9	10
Chatham.....	1				25			
Cherokee.....	3		2	3	1			
Chowan.....								
Clay.....								
Cleveland.....	10	684		8	24	997		6
Columbus.....	10	*		10	11	*		0
Craven.....	16	950	3	6	22	*	0	4
Cumberland.....	8	800	6	7	12	1,000	9	10
Currituck.....								
Dare.....								
Davidson.....	4	*	0	0	22	721	0	3
Davie.....								
Duplin.....					18	1,000		
Durham.....	8	1,000		3	32a	1,000		5
Edgecombe.....	7	*		3	29	*		2
Forsyth.....	6	1,000	2	2	18		3	2

(a) Includes 17 in house of correction. * Space exceeds 1,000 cubic feet.

Condition of Jails and Poor-houses by Counties for November, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Franklin	4				21			
Gaston	3	*	0	1	13	*	0	2
Gates								
Graham								
Granville								
Greene	0	500			10	1,000		1
Guilford	14	891			34	*		
Halifax	6			6	50			5
Harnett								
Haywood								
Henderson	2			1	7	*		3
Hertford								
Hyde								
Iredell	5	*			29	554		
Jackson	0				4	200	2	1
Johnston								
Jones					5	*		
Lenoir								
Lincoln	4			2	22	470		
McDowell	5	550	1	2	9	600	2	1
Macon	0				0			
Madison	4	717	0	0	6	*	0	0
Martin								
Mecklenburg								
Mitchell								
Montgomery	1	420		1	10	*		
Moore	9	*	1	3	6	*	1	2
Nash					35		8	5
New Hanover	19a	550	13	8	13	*	10	7
Northampton								
Onslow								
Orange	1	512			30	*	12	8
Pamlico								

(a) Includes 5 in house of correction. * Space exceeds 1,000 cubic feet.

Condition of Jails and Poor-houses by Counties for November, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....	2		2	1	3		3	1
Perquimans.....								
Person.....								
Pitt.....	3			1	20	1,000	0	2
Polk.....	3	*	0	3	4	1,000		0
Randolph.....	6	*			33	491	10	10
Richmond.....	5				6			
Robeson.....	9	761			9	800		
Rockingham.....								
Rowan.....	11	650	0	8	19	*	0	2
Rutherford.....	3	*			26	997		
Sampson.....	4				18			
Stanly.....								
Stokes.....	6	840	2	1	10	600	2	4
Surry.....								
Swain.....								
Transylvania.....								
Tyrrell.....	0	*			4	*		0
Union.....	2	*			20	*		2
Vance.....	8	*	4	2	17	*		
Wake.....	17	*			102a			
Warren.....	2	*	2	2	14	*	10	3
Washington.....								
Watauga.....								
Wayne.....	3	*	2	1	12	*	2	2
Wilkes.....								
Wilson.....	7				27			
Yadkin.....	0				24		0	9
Yancey.....	4	1,000	1	4				

(a) Includes 52 in house of correction. * Space exceeds 1,000 cubic feet.

Meteorological Report for November, 1896.

STATIONS.	TEMPERATURE.										NO. DAYS.				Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	
Chapel Hill.....																
Chat'oga, Tenn.	55.8	79.0	11	28.0	1	51.0	.....	34.0	23	6.0	3	22	5	3	3	0.16 N.W.
Charleston, S. C.	66.0	81.0	18	38.0	28	43.0	.....	24.0	5	7.0	15	15	7	8	4	0.42 N.
Charlotte.....	55.4	78.0	10	29.0	29	49.0	.....	31.0	6	6.0	14	19	4	7	4	0.23 S.
Columbia, S. C.	46.6	81.0	17	28.0	29	53.0	.....					20	6	4	4	1.47 S. E.
Hatteras																
Kitty Hawk.....	55.4	72.0	a	33.0	29	39.0	.....	29.0	29	4.5	15	9	17	4	3	0.07 N. E.
Knoxv'le, Tenn	52.0	76.0	16	26.0	1	50.0	.....	34.0	5	9.0	3	16	11	3	2	0.17 E.
Lynchburg, Va.	51.4	81.0	10	26.0	29	55.0	.....	39.0	6	4.0	12	13	7	10	3	0.03 N.W.
Norfolk, Va.....	52.8	79.0	10	30.0	29	49.0	.....	27.0	6	3.0	13	16	9	5	3	0.23 S.
Raleigh.....	53.8	79.0	11	29.0	28	50.0	18.7	32.0	6	5.0	16	15	7	8	4	0.06 S. W.
Southport.....	56.0	73.0	18	33.0	30	40.0	.....	22.8	30	3.6	13	17	5	8	1	0.13 S. W.
Wake Forest.....																
Wilmington	57.0	80.0	10	32.0	28	48.0	.....	34.0	7	5.0	13	17	8	5	2	0.36 N. E.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C.....						
Chattanooga, Tenn	30.188	30.413	21	29.910	30	.503
Charleston, S. C.	30.160	30.331	21	29.832	30	.502
Charlotte, N. C.	30.150	30.320	1	29.810	30	.510
Columbia, S. C.						
Hatteras, N. C.						
Kitty Hawk, N. C.						
Knoxville, Tenn	30.190	30.413	21	29.876	30	.537
Lynchburg, Va	30.136	30.363	16	29.780	17	.583
Norfolk, Va	30.133	30.360	16	29.711	30	.649
Raleigh, N. C	30.159	30.346	21	29.789	30	.560
Southport, N. C.						
Wake Forest, N. C						
Wilmington, N. C	30.170	30.360	21	29.800	30	.560

(a) 9th and 11th. (b) 2d and 5th.

BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

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VOL. V.

JANUARY, 1891.

NO. 10.

Report of J. W. Long, County Superintendent of Health, Randolph County.

To the Honorable Board of Commissioners Randolph County, State of North Carolina, Greeting:

I have the honor to submit to you the following brief report :

1. *General Sanitary Matters.*—As a whole, the people of our county have great cause for congratulations because of the almost unprecedented good health with which they have been blessed during the year 1890. We have been visited by no *scourge*, nor any *epidemic* of alarming extent or degree. True, there have been a number of deaths in the county during the past year from the *infectious diseases*, such as diphtheria, typhoid and malarial fever, tuberculosis, &c., but these have been few in number as compared with previous years. Besides the deaths from the causes just mentioned there have, of course, been the usual number from *accidental* and *natural* causes.

During last spring our people suffered, in common with the rest of the country, with that peculiar epidemic known as *La Grippe*.

During the summer and fall *typhoid* and *malarial fevers* prevailed to some extent, *especially along the line of the new railroads*. This feature of these fevers is common in the history of railroads, therefore it is not peculiar to Randolph County.

Measles and *whooping-cough* have prevailed to a limited extent in certain portions of the county, notably around Ashboro and the Uwharrie section.

Diphtheria has been frequently reported by the doctors throughout the county, but as occurring only in a *sporadic* form, and not epidemically.

A peculiar form of *membranous inflammation* of the upper air-passages has occurred in some instances. Its similarity to diphtheria gives to it additional interest, but the fact that a case of this disease *never proves fatal* (unless it attacks the larynx, when it kills purely by mechanical obstructions), while diphtheria usually proves fatal, is a practical distinction that should not be forgotten. This false membrane sometimes forms in the *nose exclusively*, and occasionally in the *larynx*, but most often on the *tonsils*.

2. *The Poor-house*.—I think it may be safely said that the poor-house is in the best condition it has ever been in. There is still urgent need for a steward's house, which matter I hope this honorable Board will duly consider.

3. *The Jail*.—As to this institution, I will state in a few words that there are a number of reforms needed, and I bespeak the hearty co-operation of this Board in aiding Mr. Ross, our new Sheriff, in making such changes as he deems best.

As your County Superintendent of Health, I have earnestly tried to discharge the duties incumbent upon me—such as regularly visiting the jail and poor-house, gathering vital statistics, making reports to the State Board of Health and this honorable Board, examining lunatics, making the post-mortem or other examination necessary for coroner's juries, abating nuisances, &c., &c.

I remain, my dear sirs,

Respectfully your servant,

J. W. LONG,

County Superintendent of Health.

A GREAT many of the County Superintendents of Health in their reports state that there is very little sickness, but they do not give the nature of what does occur. When we ask for the prevailing diseases, we don't mean *epidemics only*, but want the nature of the diseases that have been the most common source of trouble to the people. Reporters will please bear this in mind in future, and take the trouble to say what the prevailing diseases have been.

We notice, too, that some, in their mortuary reports, leave out of the general classification (viz., the causes of death), those deaths occurring under five years of age, fearing, probably, they will be counted twice. They should appear in both places, for the death-rate is calculated on the figures above the line for the total.

We sent out to each Superintendent, some time since, some blanks to be distributed among the physicians of their respective counties, with the hope of obtaining fuller reports. Only one Superintendent has asked for more.

Dr. LONG, of Randolph, has been much pleased at the result in his county, as a good many doctors have reported to him, and his report to this office is correspondingly improved. Why will not a few doctors in each county interest themselves sufficiently to send a report to their Superintendent once each month? It will take only five minutes to fill out the blanks which this office will furnish, and it would make the reports of the County Superintendents very much more valuable. Spare five minutes each month, gentlemen, to this work, and you will do a great deal to improve the BULLETIN.

Review of Diseases for December, 1890.

Bronchitis—Was reported from Guilford, McDowell, Moore, Stanley, Swain and Wayne.

Catarrhal Affections—From Caswell, Duplin, Gaston, Halifax, McDowell, Moore, New Hanover, Orange, Richmond, Rowan, Union, Watauga and Wayne.

Chicken-Pox—From Bladen.

Cholera (hogs)—From Lincoln.

Cholera (chickens)—From Franklin.

Diphtheria—From Buncombe, Cabarrus, Caldwell, Chatham, McDowell, Nash, New Hanover, Polk and Stokes.

Distemper—From Macon, New Hanover, Randolph, Yadkin and Yancey.

Influenza, or La Grippe—From Alamance, Cherokee and Moore.

Jaundice—From Catawba.

Lung Fever (horses)—From Tyrrell.

Malarial Fever—From Greene, Guilford and Rowan.

Malarial Fever, (pernicious)—From Jones and Watauga.

Measles—From Alexander, Cumberland, Jackson, New Hanover, Pender, Polk, Randolph, Stokes, Swain and Wake.

Meningitis—From Alamance.

Parotiditis—From Polk and Wake.

Pink-Eye—From Davidson.

Pneumonia—From Caldwell, Caswell, Duplin, Greene, Guilford, Henderson, Iredell, McDowell, Moore, Orange, Rowan, Rutherford, Stanly, Swain, Union and Wayne.

Rheumatism—From Guilford.

Scabies—From Stanly.

Scarlatina—From Durham, Orange and Wake.

Staggers—From Caswell, Chatham, Durham and Halifax.

Tonsilitis—From Randolph.

Typhoid Fever—From Alexander, Buncombe, Cabarrus, Caswell, Columbus, Duplin, Franklin, Iredell, McDowell, Mitchell, Nash, New Hanover, Pender, Polk, Robeson, Stanly, Union, Wake and Yadkin.

Varicella—From Wake.

Whooping-Cough—From Alexander, Bladen, Cabarrus, Chatham, Halifax, Stokes and Yadkin.

Review of Vital Statistics for December, 1890.

(ELEVEN TOWNS.)

	White.	Col'd.	Total.
Aggregate population.	50,700	42,200	92,900
Aggregate deaths.....	42	80	122
Temporary annual death-rate per 1,000.....	9.9	22.7	15.8
Deaths under five years,			40
<i>Causes of death.</i>			
Typhoid fever.....	2	2	4
Malarial fever.....	1	2	3
Diphtheria.....	1	0	1
Pneumonia.....	2	6	8
Consumption.....	7	9	16
Brain diseases.....	2	1	3
Heart diseases.....	3	3	6
Neurotic diseases....	0	3	3
All other diseases....	12	34	46
Accident.....	1	0	1
Still-born.....	2	9	11
	33	69	102
Raleigh, unclassified..	9	11	20
	42	80	122

Summary of Reports from County Superintendents for Month of December, 1890.

Alamance—Dr. G. W. Long, Graham. There has been little sickness throughout the county so far as I can learn, except that influenza has prevailed. One case of meningitis was reported. The sanitary condition of the public buildings is good except the jail, and it promises to be some better, since the jailer lives in the building. Quite a number of horses have died from an unknown disease.

Alexander—Dr. J. B. Watts, Taylorsville. Measles, whooping-cough and typhoid fever have prevailed in the southern portion of the county. The general sanitary condition of the county is very good, as also that of the public buildings.

Alleghany—No Board of Health.

Anson—Dr. E. F. Ashe, Wadesboro. No report.

Beaufort—Dr. W. A. Blount, Washington. No report.

Bertie—No Board of Health.

Bladen—Dr. Newton Robinson, Elizabethtown. A few cases of whooping-cough have been reported. Colds are quite prevalent, and I have been informed that chicken-pox prevailed in some sections. The sanitary condition of the county is good, that of the public buildings is not good.

Brunswick—No Board of Health.

Buncombe—Dr. H. B. Weaver, Asheville. Four cases of diphtheria and two of typhoid fever have been reported. The sanitary condition of the county is excellent. All the public buildings are in very good condition; only two deaths in both institutions during 1890. The jailer and Superintendent of the poor-house are well suited for both positions, and do good work in their respective departments.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. S. Young, Concord. Forty cases of whooping cough, four of diphtheria and sixteen of typhoid fever have been reported. The sanitary condition of the county is good. We are having new sewerage put into the jail.

Caldwell—Dr. A. A. Kent, Lenoir, reports from New York, that up to the time of his leaving the county the health of the people was excellent, he having only one case of pneumonia and one of diphtheria to report. There were no prisoners in jail, and one inmate less in the poor-house.

Camden—No Board of Health.

Carteret—Dr. M. F. Arendell, Morehead City. The sanitary condition of the county is very good; also that of the public buildings.

Castwell—Dr. R. H. Williamson, Yanceyville. A few cases of pneumonia, typhoid fever and catarrhal cold have been reported. Blind staggers has been epidemic among horses. The general sanitary condition of the county is good; also that of the public buildings.

Catawba—Dr. J. M. McCorkle, Newton. Epidemic jaundice has prevailed in some sections. The sanitary condition of the county is good; also that of the public buildings.

Chatham—Dr. H. T. Chapin, Pittsboro. Twenty-five cases of whooping-cough and two of diphtheria have been reported. The sanitary condition of the county is good. Quite a number of horses have died with the blind staggers. The sanitary condition of the public buildings is good.

Cherokee—Dr. J. F. Abernathy, Murphy. The health of our people could not be better for this season. Some benign forms of *La Grippe* have been reported. There has been no improvement in the sanitary condition of the public buildings. The contract has been awarded for a new court-house, to cost \$24,500.

Chowan—Dr. R. H. Winborne, Barnitz. Our county presents a clean bill of health—not a case of acute or infectious disease in the county to my knowledge. In an experience of thirty-six years I have never seen less sickness in the county than during the past months of November and December. For the past two years malarial fevers have been rare indeed. They seem to be leaving us, and their place substituted by typhoid fever. The sanitary condition of the public buildings is good.

Clay—No Board of Health.

Cleveland—Dr. O. P. Gardner, Shelby. The sanitary condition of the county is good.

There have been no prevalent diseases. The sanitary condition of public buildings is good.

Columbus—Dr. I. Jackson, Whiteville. Two cases of typhoid fever have been reported. The general sanitary condition of the county is good; also that of the public buildings.

Craven—Dr. Leinster Duffy, New Berne. No report.

Cumberland—Dr. J. H. Marsh, Fayetteville. Measles has prevailed generally throughout the county in epidemic form. The sanitary condition of the county is good; also that of the public buildings.

Currituck—No Board of Health.

Dare—No Board of Health.

Davidson—Dr. R. L. Payne, Jr., Lexington. Pink-eye has prevailed to a limited extent among horses, and a number have died from a disease something like meningitis. The sanitary condition of the county and public buildings is good.

Davie—No Board of Health.

Duplin—Dr. J. W. Blount, Kenansville. The general sanitary condition of the county is very good; but very little sickness of any kind reported. A few cases of pneumonia and typhoid fever; slight catarrhal fevers very prevalent. Sanitary condition of the poor-house very good.

Durham—Dr. N. M. Johnson, Durham. A few cases of scarlatina of very mild form have occurred in the county. There has been an epidemic of something like staggers among horses that seems to be very fatal. The general health of the county has been remarkably good. The sanitary condition of the public buildings is good.

Edgecombe—Dr. J. M. Baker, Tarboro. No report.

Forsyth—Dr. D. N. Dalton, Winston. No report.

Franklin—Dr. E. S. Foster, Louisburg. So far as I can learn, the sanitary condition of the county was never better; only one case of typhoid fever reported. There was an epidemic of cholera among chickens in certain sections. The sanitary condition of the public buildings is good.

Gaston—Dr. E. B. Holland, Dallas. Catarrhal fever has prevailed. The sanitary condition of the county is remarkably good; that of the public buildings also.

Gates—No Board of Health.

Graham—No Board of Health.

Granville—Dr. J. M. Hays, Oxford. No report.

Greene—Dr. E. H. Sugg, Snow Hill. Malarial fever has prevailed in the county, and there have been a few cases of pneumonia. The sanitary condition of the county is very good; that of the public buildings is good, with the exception of the jail, which should be so arranged that the prisoners might have fire. I have seen the Commissioners in regard to the matter, but they have made no improvement.

Guilford—Dr. E. R. Michaux, Greensboro. The health of the county has continued very good. Have had several cases of pneumonia, however, along with some rheumatism, malarial troubles and bronchitis, many of the last having been quite severe. There has been a remarkable number of still-births during the past month. In my next report I hope to give a more concise account from the surrounding county, as I have the promise of some of the county physicians to report from their respective fields. The sanitary condition of the poor-house and other public buildings is good, with the exception of the jail. I mentioned some special points concerning the jail in my last report. The jail has recently been cleaned out and white-washed, which is always acceptable, but the truth is, *we need a new jail*.

Halifax—Dr. A. B. Pierce, Weldon. Some cases of whooping-cough have been reported. There has been an epidemic of what we call blind staggers among cattle. It is remarkably healthy—no sickness of any kind, except catarrhs. The jail has recently been repaired and rendered more safe, and the sanitary condition better. No improvement at the poor-house yet.

Harnett—No Board of Health.

Haywood—Dr. R. L. Allen, Waynesville. No report.

Henderson—Dr. W. B. Reese, Hendersonville. The sanitary condition of the county is

very good, with very little sickness reported. A few cases of pneumonia have occurred. Jail and poor-house are both new, and in good sanitary condition.

Hertford—No Board of Health.

Hyde—No Board of Health.

Iredell—Dr. M. W. Hill, Statesville. Two cases of typhoid fever have been reported. The sanitary condition of the county is good, as far as I know. A few cases of pneumonia have been heard of. Also there have occurred a few cases of blind staggers among horses. The jail is kept about as heretofore, but is not well arranged for safety, comfort, ventilation and cleanliness. Improvements are being made at the poor-house, but none at the jail.

Jackson—Dr. J. M. Chandler, Dillsboro. Measles in mild form have prevailed in Jackson. The sanitary condition of the county was never better; that of the public buildings very good.

Johnston—Dr. L. L. Sasser, Smithfield. No report.

Jones—Dr. C. B. Woodley, Trenton. One case of pernicious malarial fever reported. The sanitary condition of the county is very good—very little sickness reported. Sanitary condition of public buildings is good.

Lenoir—No Board of Health.

Lincoln—Dr. W. L. Crouse, Lincolnton. The sanitary condition of the county is good. There has been an epidemic of hog cholera. Sanitary condition of the public buildings is good.

Macon—Dr. J. M. Lyle, Franklin. Two cases of diphtheria and one of typhoid fever reported. The sanitary condition of the county is good, except some points on the outskirts. Common distemper has prevailed among animals. The sanitary condition of the public buildings is good.

Madison—No report.

Martin—Dr. W. H. Harrell, Williamston. No report.

McDowell—Dr. J. H. Gilkey, Marion. Catarrhal affections have prevailed in some portions. There have also been a few cases of pneumonia and bronchitis, but with these

exceptions, there has been very little sickness. The sanitary condition of county and public buildings is good.

Mecklenburg—No Board of Health.

Mitchell—Dr. W. P. Upton, Bakersville. The sanitary condition of the county is very good. Three cases of typhoid fever reported, with one death. The sanitary condition of the jail is bad. Some efforts are being made to build a new one. That of the poor-house is good.

Montgomery—No Board of Health.

Moore—Dr. Gilbert McLeod, Carthage. Influenza has prevailed in all portions of the county. The sanitary condition of the county is good, but there has been more sickness than during November. The prevailing sickness has been pneumonia, bronchitis and the results of bad colds. The sanitary condition of the public buildings is good.

Nash—Dr. G. W. Lewis, Spring Hope. There has been reported one case of diphtheria and ten of typhoid fever. Typhoid has prevailed in several portions of the county. The sanitary condition of the county is fairly good. I have had a case of gangrene occurring in a case of typhoid fever. The sanitary condition of the public buildings is good.

New Hanover—Dr. F. W. Potter, Wilmington. There have been reported two cases of measles, two of diphtheria and three of typhoid fever. Slight catarrhal troubles have been common among horses. There has been a good deal of catarrhal troubles in the county, but not severe or fatal. I have been reiterating the call made by the Board of Health on the city for a crematory. All the public buildings are in good sanitary condition.

Northampton—Dr. H. W. Lewis, Jackson. No report.

Onslow—No Board of Health.

Orange—Dr. D. C. Parris, Hillsboro. One case of scarlatina reported. Catarrhal diseases have prevailed in all portions of the county. The general sanitary condition of the county is fairly good. Pneumonia has prevailed moderately. The sanitary condition of

the public buildings is good, with the exception of the public school, which, as a rule, are not well ventilated, well lighted or well seated. In some the light and ventilation are sufficient for the summer season, but not for the winter. In some instances the drinking water is not pure in the summer season.

Pamlico—No Board of Health.

Pasquotank—No Board of Health.

Pender—Dr. S. S. Satchwell, Burgaw. Twenty cases of measles and eight of typhoid fever have been reported. The sanitary condition of the county during the year 1890 has been a decided improvement over 1889. Our people are having more regard for health laws and more respect for health boards. There has been less malaria in 1890 than there was in 1889, and less sickness.

Perquimans—No Board of Health.

Person—No Board of Health.

Pitt—Dr. B. T. Cox, Redalia. No report.

Polk—Dr. Henry Shankle, Mills' Springs. Five cases of measles, three of diphtheria and two of typhoid fever reported. Parotiditis has prevailed in several portions. The health of the county is very good now. No effort to improve the public buildings at this time. The poor-house needs the careful attention of the Commissioners, but I fear will not receive it.

Randolph—Dr. J. W. Long, Randleman. Thirty-five cases of measles, four of croupous tonsillitis, two of croupous rhinitis and one of hæmorrhagic malarial fever have occurred. Distemper among horses has prevailed in many portions, being scattered by drovers passing through. The sanitary condition of the county is good, if we judge by the limited amount of sickness reported. The doctors reporting are Drs. Henly, Lewis and Malone. Our new Sheriff and jailer are co-operating with me in trying to remedy some of the evils in connection with the jail, such as improving the drainage and general sanitary condition of the premises. They are also trying to have a new barn built on the jail lot. I am glad to be able to add that our Commissioners are displaying a greater willingness to improve the jail than

heretofore. We have three new men on the Board.

Richmond—Dr. J. M. Covington, Rockingham. Very little sickness of any kind reported, with the exception of catarrhal troubles. The sanitary condition of the county is moderately good; also that of the public buildings.

Robeson—Dr. R. F. Lewis, Lumberton. The sanitary condition of the county is good. Typhoid fever has occurred. Sanitary condition of the public buildings is fair.

Rockingham—No Board of health.

Rowan—Dr. J. J. Summerell, Salisbury. The general sanitary condition of the county is pretty good, and the people well as far as I know. Dr. Poole reports considerable pneumonia down on the Yadkin River; Dr. Ramsay reports catarrhal diseases and lingering malarial cases and a unique case of cellular multiple abscess. The sanitary condition of public buildings is fairly good. There are some improvements contemplated in the court-house that can but add to its healthfulness. I have brought it to the attention of the Commissioners, and hope they will soon feel it their duty to accomplish it.

Rutherford—Dr. W. A. Thompson, Cliffdale. There have been a few sporadic cases of pneumonia; no epidemics. The poor-house is in good sanitary condition; that of the jail moderate.

Sampson—Dr. J. A. Stevens, Clinton. No report.

Stanly—Dr. D. P. Whitley, Plyler. Two cases of typhoid fever reported. Acute bronchitis has prevailed in nearly all portions of the county. Pneumonia and bronchitis usually of a mild type. No contagious diseases in the county except scabies. The sanitary condition of the poor-house is good; that of the jail only tolerably so.

Stokes—Dr. W. V. McCauless, Danbury. Two cases of measles, five of whooping-cough and four of diphtheria reported. The sanitary condition of the county is good; that of public buildings about the same as last reported.

Surry—No Board of Health.

Swain—Dr. E. M. Suggs, Bryson City.

We have had some cases of pneumonia and bronchitis of a mild form. Measles is abating. Sanitary condition of the public buildings is pretty good.

Transylvania—No Board of Health.

Tyrrell—Dr. A. Alexander, Columbia. The general sanitary condition of the county is good. There has been an epidemic of lung fever among horses, twenty-one dying.

Union—Dr. W. C. Ramsay, Monroe. Typhoid and catarrhal fevers have prevailed in some portions of the county. There have also been a few cases of pneumonia. Sanitary condition of poor-house good; that of jail bad.

Vance—Dr. A. Cheatham, Henderson. No report.

Wake—Dr. James McKee, Raleigh. The sanitary condition of Raleigh and the hygienic condition of the entire county could not be better. There have been reported fifty-eight cases of measles, two of scarlatina and two of typhoid fever; also one of parotiditis, two of varicella and one of puerperal septicæmia. All public buildings are well kept and managed. The most stringent hygienic regulations are rigidly enforced by county and local boards of health.

Warren—Dr. P. J. Macon, Warrenton. No report.

Washington—No Board of Health.

Watauga—Dr. W. B. Councill, Boone. No diseases of a dangerous nature have prevailed in the county. The sanitary condition of the county is remarkably good. We have had a few mild cases of colds and sore throat during the month, and one case of pernicious malarial fever was reported. Both jail and poor-house are in good sanitary condition; both new and well kept. We have a jail admirable in all its appointments, and the poor-house is all that could be desired.

Wayne—Dr. W. H. Cobb, Jr., Goldsboro. There has not been very much sickness during the past month. Cases of pneumonia, bronchitis and catarrhal fevers have been reported. The sanitary condition of the public buildings has been only fairly good, and there is room for improvement both in jail and poor-house.

Wilkes—No Board of Health.

Wilson—Dr. R. W. King, Wilson. The sanitary condition of the public buildings is only ordinarily good, and there are no efforts at improvement.

Yadkin—Dr. T. R. Harding, Yadkinville. Whooping-cough, diphtheria and typhoid fever have prevailed in some portions of the county. There has been an epidemic of distemper

among horses. The sanitary condition of the county is about as at the last report. No efforts to improve the jail; poor-house will be renewed shortly. Sanitary condition of the jail is bad.

Yancey—Dr. J. L. Ray, Burnsville. The general sanitary condition of the county is unusually good. There has been a little distemper among horses. The sanitary condition of public buildings is moderately good.

Condition of Jails and Poor-houses by Counties for December, 1890.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....	4a	500			40	500		
Alexander.....	0				10	650	0	3
Ashe.....								
Alleghany.....								
Anson.....								
Beaufort.....								
Bertie.....								
Bladen.....	2				6			
Brunswick.....								
Buncombe.....	20	800		12	28	700		10
Burke.....								
Cabarrus.....	10	*	3	3	16	*	4	7
Caldwell.....	0	0	0	0				
Camden.....								
Carteret.....	0	0	0	0	0	0	0	0
Caswell.....	1	500			24	1,000	9	3
Catawba.....	4	700	0	2	28	800	9	10
Chatham.....	2				28			
Cherokee.....	0	0	0	0	2	\$40		
Chowan.....	2				7			
Clay.....								
Cleveland.....	13	691		8	25	997		5
Columbus.....	11	*		8	13	*		0
Craven.....								
Cumberland.....	10			7	16			4
Currituck.....								
Dare.....								
Davidson.....	4	*	0	0	21	720	0	4
Davie.....								
Duplin.....					16	*		
Durham.....	8	1,000		3	27b	1,000		5
Edgecombe.....								
Forsyth.....								

(a) House of correction. * Space exceeds 1,000 cubic feet. (b) Includes 10 in house of correction.

Condition of Jails and Poor-houses by Counties for December, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Franklin.....	4			1	20			2
Gaston.....	5				8			
Gates.....								
Graham.....								
Granville.....								
Greene.....					10	1,000		1
Guilford.....	14	891			30	*		
Halifax.....	6			3	51			7
Harnett.....								
Haywood.....								
Henderson.....	3	*	3	2	6	*	2	1
Hertford.....								
Hyde.....								
Iredell.....	7	*			20	554		
Jackson.....	1	200	0	1	3	300	2	1
Johnston.....								
Jones.....					5	*		
Lenoir.....								
Lincoln.....	6	*			22	500		
McDowell.....	4	500	2	2	9	450	1	1
Macon.....	0				0			
Madison.....								
Martin.....								
Mecklenburg.....								
Mitchell.....								
Montgomery.....								
Moore.....	11	870	0	4	6	*	0	1
Nash.....					32		8	3
New Hanover.....	20	550	16	10	14	*	13	10
Northampton.....								
Onslow.....								
Orange.....	1	512		1	27	*	10	12
Pamlico.....								

* Space exceeds 1,000 cubic feet. (a) Includes 4 in house of correction.

Condition of Jails and Poor-houses by Counties for December, 1890. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....								
Perquimans.....								
Person.....								
Pitt.....								
Polk.....	3	*	0	3	4	500	0	1
Randolph.....	7	960	3	3	35	462	10	11
Richmond.....	5				6			
Robeson.....	8				9			
Rockingham.....								
Rowan.....	15	500	7	13	18	*	2	
Rutherford.....	6				28			
Sampson.....								
Stanly.....	0				13	(5)	0	1
Stokes.....	5		0	1	12		3	6
Surry.....								
Swain.....								
Transylvania.....								
Tyrrell.....	0	*	0	0	3	*	0	0
Union.....	6	*		2	16	*		2
Vance.....								
Wake.....	27				110a			
Warren.....								
Washington.....								
Watauga.....	1		0	0	7		4	0
Wayne.....	5	*	2	3	12	*	2	1
Wilkes.....								
Wilson.....	7	*			19	*		
Yadkin.....	2		0	1	23		0	9
Yancey.....	2		2	2				

* Space exceeds 1,000 cubic feet. (a) Includes 57 in house of correction.

Meteorological Report for December, 1896.

STATIONS.	TEMPERATURE.										NO. DAYS.				Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	
Chapel Hill.....																
Chat'oga, Tenn.	41.8	65.0	2	26.0	13	39.0	.....	34.0	1	5.0	26	12	8	11	11	3.13 N.W.
Charleston, S.C.	51.0	75.0	7	34.0	28	41.0	.....	27.0	23	5.0	8	21	3	7	4	1.01 W.
Charlotte.....	42.9	68.0	11	24.0	28	44.0	.....	31.0	11	3.0	16	21	2	8	8	3.81 S.W.
Columbia, S. C.	46.0	68.0	6	25.0	14	43.0	.....	30.2	14	10.0	8	21	5	5	6	1.57 N.W.
Hatteras	47.0	67.0	6	31.0	29	36.0	.....	26.0	.....	5.0	.....	19	6	6	10	6.01 N. E.
Kitty Hawk.....	46.4	67.0	5	28.0	13	39.0	.....	23.0	6	8.0	28	6	18	7	11	3.34 N. E.
Knoxville, Tenn.	40.0	60.0	23	23.0	13	37.0	.....	33.0	23	4.0	a	13	7	11	10	4.66 N. E.
Lynchburg, Va.	38.5	62.0	11	19.0	27	43.0	.....	29.0	14	6.0	25	9	11	8	11	5.14 N.W.
Norfolk, Va.	41.4	64.0	3	25.0	29	39.0	.....	31.0	3	5.0	28	14	9	8	9	6.01 N.W.
Raleigh.....	41.4	67.0	11	23.0	13	44.0	.....	29.0	5	4.0	26	15	5	11	8	3.57 S.W.
Southport.....	46.4	67.0	c	26.0	13	41.0	.....	26.0	14	9.0	25	20	3	8	5	1.34 N. E.
Wake Forest.....																
Wilmington	47.0	74.0	7	26.0	13	48.0	.....	34.0	.....	7.0	.....	16	6	9	7	0.61 N. E.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C.....						
Chattanooga, Tenn	30.196	30.512	13	29.815	3	.697
Charleston, S. C.	30.152	30.509	20	29.752	17	.757
Charlotte, N. C.	30.140	30.570	20	29.580	17	.990
Columbia, S. C.						
Hatteras, N. C.	30.130	30.600	20	29.500	17	1.100
Kitty Hawk, N. C.						
Knoxville, Tenn.	30.200	30.510	13	29.800	3	.710
Lynchburg, Va.	30.131	30.620	20	29.326	17	1.294
Norfolk, Va.	30.108	30.612	20	29.382	17	1.230
Raleigh, N. C.	30.137	30.605	20	29.441	17	1.161
Southport, N. C.						
Wake Forest, N. C.						
Wilmington, N. C.	30.150	30.590	20	29.590	17	1.000

(a) 7th and 26th. (b) 24th and 29th. (c) 6th and 7th.

Mortuary Report for December, 1890.

TOWNS AND REPORTERS.	Races.	Population.		Temporary Annual death Rate per 1,000.	Typhoid Fever.	Scarlet Fever.	Malarial Fever.	Diphtheria.	Whooping-Cough.	Measles.	Pneumonia.	Consumption.	Brain Diseases.	Heart Diseases.	Neurotic Diseases.	Diarrhoeal Diseases.	All other Diseases.	Accident & Violence.	Suicide.	Still-Born.	Total	
		By Races.	Total.																		By Races.	Tot.	By Races.	By Towns.	Deaths under 5 yrs.
Asheville.....	White	7,000	10,000	6.8	13.2	1	1	1	5	1	1	1	1	1	1	1	1	1	1	1	11	5
Dr. H. B. Weaver.....	Color'd	3,000		28.0																	12	7
Charlotte.....	White	6,000	13,000	15.4	21.2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	23
Dr. J. Scarr.....	Color'd	7,000		28.0																	2	7
Durham.....	White	4,000	7,000	0.0	3.1																0	2
Dr. N. M. Johnson.....	Color'd	3,000		8.0																	1	1
Fayetteville.....	White	2,500	5,000	21.4	19.2							1	1			3					5	7
Dr. J. A. Hodges.....	Color'd	2,200		16.4												2				1	3	
Goldsboro.....	White	2,500	5,000	0.0	0.0																0	0
Dr. W. H. Cobb, Jr.....	Color'd	2,500		0.0																	0	
Henderson.....	White	1,785	3,500																			
Dr. A. Cheatham.....	Color'd	1,715																				
Newbern.....	White	3,000	7,000																			
S. Fulcher, City Clk.....	Color'd	4,000																				
Oxford.....	White	1,600	3,200	7.5	11.2											1					1	3
Dr. J. M. Hays.....	Color'd	1,600		15.0												1						
Raleigh.....	White	8,000	15,000	13.5	16.0																9	2
Dr. Jas. McKee.....	Color'd	7,000		18.9																	11	20
Salisbury.....	White	2,800	4,200	8.6	11.4						1	1		1							2	4
Dr. J. J. Summerell.....	Color'd	1,400		10.9							1	1									2	
Tarboro.....	White	1,300	2,500																			
Dr. J. M. Baker.....	Color'd	1,200																				
Washington.....	White	2,400	4,000																			
Dr. S. T. Nicholson.....	Color'd	1,600																				
Wilmington.....	White	9,000	21,000	9.3	25.7	2	1					2	1	3		2				1	7	45
Dr. F. W. Potter.....	Color'd	12,000		38.0		1				1	6					21				3	38	
Greensboro.....	White	4,000	6,000	3.0	4.0											1					1	2
Dr. E. R. Michaux.....	Color'd	2,900		6.0												1						
Statesville.....	White																					
Dr. M. W. Hill.....	Color'd																					
Wilson.....	White	2,000	3,500	21.0	13.7	2					1										4	4
Dr. R. W. King.....	Color'd	1,500		0.0																	0	
Hillsboro.....	White	350	600																			
Dr. D. C. Parrish.....	Color'd	250																				
Monroe.....	White	1,900	2,200																			
Dr. W. C. Ramsay.....	Color'd	300																				
Salem—S. W. Clerk.....	White	3,000	3,500																			
Dr. City Clerk.....	Color'd	500																				

BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

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SUBSCRIPTION FIFTY CENTS A YEAR.

H. T. BAHNSON, M. D., <i>Pres.</i>Salem.	W. D. HILLIARD, M. D.,Asheville.
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THOMAS F. WOOD, M. D., <i>Secretary and Treasurer</i> , Wilmington.	

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FEBRUARY, 1891.

NO. II.

Mortality Statistics.

The importance of vital statistics in determining the causes of death, and preventing those diseases that are preventable, has ceased to be a debatable point with those who are at all familiar with such matters. But to be of value it is necessary that the statistics be as certain correct as is possible to make them. And it is also necessary that the reports be collected promptly and regularly. The State Board of Health have made repeated efforts to gather statistics, both from the several counties, and from the larger towns in the State. It soon became evident that the attempt to get reports from the country districts, that even approximated the true state of affairs, was absolutely useless; and the efforts were then directed entirely to the towns.

As a result, we have been able to give in our biennial report to the Governor, the number of deaths, with causes, occurring in some ten or twelve towns for the past two years. But even of these towns, there were only a few from which the reports were received every month during the two years, some missing as much as

four months in each year. Of course these breaks vitiate the value of the reports. The reason for these breaks evidently is the fact that the reporting is left to be the work of some volunteer.

With the hope of correcting this difficulty, and increasing the number of reports, there will be mailed to the mayor of each town in the State having a population as high as 1,000, a circular letter, asking him to use his influence in having passed by his town council such ordinances as will require the registration of every death that occurs within the corporate limits of the town. We have tried to obtain a list of all towns having a population of 1,000, and as soon as we receive this list from the Census Bureau we will send out the circulars.

The registration should be made with some paid town official, and should include the *name, age, sex, race, residence, date of death, and cause of death*. These should be registered only upon the certificate of the attending physician, or some other reliable person, who saw the deceased a short time prior to death; and no corpse should be received for burial in any cemetery unless such certificate be furnished.

If no one can give such a certificate, then the case is clearly one for the Coroner. An ordinance of this kind would be a check on foul play that might otherwise easily pass unnoticed.

A person desiring to move into the State, regards as one of the most important points into which he should inquire, the death-rate of the State as a whole, and of the town to which he expects to go especially, and it will undoubtedly be to the advantage of a town to have such a record of their deaths as will furnish the desired information, and on the accuracy of which a person may depend. It should be a part of the duty of the official with whom these registrations are made, to forward to the office of the State Board of Health on the first day of each month, or within the first five days, a copy of all registrations during the preceding month, these to be published in the Bulletin of the Board.

While a registration of every death that occurs in the entire State would be of more value in determining the death-rate of the State, it is impossible to obtain this under the absence of laws compelling such a registration, but accurate reports from every town of 1,000 population would give a pretty fair average for the entire State.

We hope that the mayors of these towns will give this matter the attention and support its importance merits; and we also hope that those of the profession under whose eye this article may fall, will bring the importance of the matter to the attention of the proper authorities and use their influence in having suitable ordinances adopted.

Legislation for Inebriates.

The *Southern Medical Record*, (Atlanta, Ga.,) December, 1890, in an editorial, entitled "A Much Needed Legislation," says: "Now that the representatives of the people are assembled at the Capitol in the capacity of legislators, it is in order for us to make such suggestions as will more fully acquaint them with our wishes and necessities. Some provision ought to be made

for the care-taking and reformation of the unfortunate inebriates of the State. It is a crying shame that nothing has been done in the Empire State of the South to give this greatly needed relief. The world is very uncharitable towards the victims of alcohol. Prohibitory laws have proven a failure; public sentiment is morbid on the subject. Temperance union movements have done much good in educating public opinion, but cannot reach these poor, ruined individuals. What shall be done with them? If inquiry be made, it will show that a large per cent. of the crimes committed—especially the homicides—are due to the effects of whiskey, or some other alcoholic liquor. The sale of intoxicants is licensed and the revenue turned into the public treasury, but there is no provision made to reform the miserable drunkard. Why is this? It is because of the *false opinion* that is abroad that drunkenness is a *sin*, but not a *disease*. Such belief obtains only among the uninformed. But we will not stop here to discuss this question. We know whereof we speak when we say that inebriety is one of the most intractable diseases known to the science of medicine. It makes a physical, moral and mental wreck of the individual, unless restored by appropriate treatment. Leaving all other questions aside, we feel that if the State of Georgia would establish and endow an asylum for these unfortunate citizens, it will prove a most economic legislation. The cost of keeping and prosecuting criminals, and providing for the insane in the asylum, would soon diminish sufficiently to admit of the establishing of suitable hospitals for the inebriate without any increased expense to the State. Humanity cries out, the heart-broken wives cry out, and the worse than fatherless children cry out for something to be done in their behalf. Legislators have promised to make needed reforms. Here is their golden opportunity. We are confident that Governor Northern will stand by them; that the people will give them their hearty endorsement, and when they return to their homes, it will be said, 'Well done, thou good and faithful servants.'"—*Med. & Surg. Reporter*.

Review of Vital Statistics for January, 1891.

(THIRTEEN TOWNS.)

	<i>White.</i>	<i>Col'd.</i>	<i>Total.</i>
Aggregate population.	48,264	41,562	89,826
Aggregate deaths.....	62	66	128
Temporary annual death- rate per 1,000.....	15.4	19.1	17.1
<i>Causes of death.</i>			
Typhoid fever.....	1	1	2
Malarial fever.....	1	3	4
Diphtheria.....	1	0	1
Whooping-cough.....	0	1	1
Measles.....	2	0	2
Pneumonia.....	8	6	14
Consumption.....	4	11	15
Brain diseases.....	6	0	6
Heart diseases.....	3	3	6
Neurotic diseases.....	1	2	3
Diarrhoeal diseases.....	1	2	3
All other diseases.....	19	77	36
Accident.....	2	1	3
Suicide.....	1	0	1
Still-born.....	5	5	10
	<hr/>	<hr/>	<hr/>
	55	52	107
Raleigh, unclassified..	7	14	21
	<hr/>	<hr/>	<hr/>
Total.....	62	66	128

Reviews of Diseases for January, 1891.

BRONCHITIS—Reported from Iredell, Johnston, Martin, McDowell, Moore, Orange, Pitt, Randolph, Richmond, Sampson, Wayne—11 counties.

CATARRHAL FEVER—From Halifax, Martin, McDowell, Orange, Union, Wake, Warren and Wayne—8 counties.

CHOLERA—From Randolph—1 county.

CHOLERA-MORBUS — From Randolph — 1 county.

CHOLERA (CHICKENS)—From Alamance and Polk—2 counties.

CHOLERA (HOGS)—From Randolph and Union—2 counties.

COLDS—From Bladen, Martin and Moore—3 counties.

DIARRHŒA—From Randolph and Wayne—2 counties.

DIPHTHERIA—From Catawba, Henderson, Macon, Nash, New Hanover, Randolph, Richmond and Stokes—8 counties.

DISTEMPER (HORSES)—Greene, Macon, Northampton, Randolph—4 counties.

ECZEMA—From Wayne—1 county.

GASTRO-ENTERITIS — From Onslow — 1 county.

INFLUENZA, OR *La Grippe*—From Alamance, Caswell, Catawba, Chatham, Cherokee, Columbus, Duplin, Gaston, Greene, Halifax, Henderson, Jones, Lincoln, Macon, Mitchell, Moore, Nash, New Hanover, Northampton, Onslow, Pender, Randolph, Richmond, Robeson, Rowan, Rutherford, Sampson, Swain, Union, Warren, Wayne—31 counties.

JAUNDICE—From Catawba and Mitchell—2 counties.

MALARIAL FEVER—From Caswell, Jones, Onslow, Pitt and Yadkin—5 counties.

MALARIAL FEVER (HEMORRHAGIC)—From Martin, Nash, Randolph and Yadkin—4 counties.

MALARIAL FEVER (PERNICIOUS)—From Randolph—1 county.

MEASLES—From Catawba, Chatham, Cumberland, Duplin, Franklin, Halifax, Jackson, New Hanover, Randolph, Richmond, Robeson, Sampson, Stokes, Vance and Wake—15 counties.

MENINGITIS—From Cherokee and Moore—2 counties.

MENINGITIS (CEREBRO-SPINAL)—From Halifax—1 county.

MUMPS—From Martin, Onslow, Wake and Yadkin—4 counties.

PNEUMONIA—From Alamance, Bladen, Cleveland, Duplin, Greene, Henderson, Iredell, Jones, Martin, McDowell, Orange, Pitt, Richmond, Rutherford, Sampson, Stokes, Swain, Union, Warren, Wayne and Yadkin—21 counties.

PLEURO-PNEUMONIA (HORSES) — From Tyrrell—1 county.

RHEUMATISM—From Henderson, Orange, Randolph—3 counties.

SCARLATINA—From Richmond—1 county.

STAGGERS—From Rowan and Union—2 counties.

TONSILITIS—From Moore—1 county.

TYPHOID FEVER—From Alexander, Caswell, Columbus, Greene, Macon, Martin, Mitchell, Nash, Northampton, Polk, Randolph, Richmond, Rowan, Rutherford, Union, Vance, Wake and Yancey—19 counties.

VARICELLA—From Randolph and Wayne—2 counties.

WHOOPIING-COUGH—From Alexander, Cleveland, Halifax, Randolph, Richmond, Rowan, Sampson, Vance, Wayne and Yadkin—10 counties.

Summary of Diseases from County Superintendents for January, 1891.

ALAMANCE—Dr. G. W. Long, Graham. Influenza has prevailed with pneumonia as a complication. It has been fatal among the old. Chicken-cholera has prevailed to a limited extent. The sanitary condition of the jail is fair; that of the other public buildings is good.

ALEXANDER—Dr. J. B. Watts, Taylorsville. Whooping-cough has prevailed throughout all sections of the county, and typhoid fever in the north-western portion. The sanitary condition of the county is tolerably good at present. The jail is in a better condition than at my last report, due to the fact that we have a new manager, and things are kept more cleanly. The poor-house is in tolerably good condition, but no efforts are being made to better it.

ALLEGHANY—No Board of Health.

ANSON—Dr. E. F. Ashe, Wadesboro. No report.

ASHE—No Board of Health.

BEAUFORT—Dr. W. A. Blount, Washington. No report.

BERTIE—No Board of Health.

BLADEN—Dr. Newton Robinson, Elizabethtown. No epidemic has prevailed in any part of the county. The sanitary condition of the

county is good, except for a few colds and a few cases of pneumonia. There has been no improvement in the condition of the public buildings.

BRUNSWICK—No Board of Health.

BUNCOMBE—Dr. H. B. Weaver, Asheville. No report.

BURKE—Dr. J. L. Laxton, Morganton. No report.

CABARRUS—Dr. R. S. Young, Concord. No report.

CALDWELL—Dr. A. A. Kent, Lenoir. No report.

CAMDEN—No Board of Health.

CARTERET—Dr. M. F. Arendell, Morehead City. The county is quite healthy; we have no epidemics of any kind. The sanitary condition of the public buildings is good.

CASWELL—Dr. R. H. Williamson, Yanceyville. Influenza and intermittent fever have prevailed, and a few cases of typhoid fever have been reported. The sanitary condition of the county is good. The condition of the public buildings is good, except that some repairs are needed on the jail.

CATAWBA—Dr. J. M. McCorkle, Newton. Influenza, measles, jaundice and diphtheria have prevailed in some sections. The general sanitary condition of the county is good; that of the public buildings is as good as could be expected. The jail is too crowded for sanitation to be as it should.

CHATHAM—Dr. H. T. Chapin, Pittsboro. *La Grippe* has prevailed in all sections of the county. A few cases of measles have occurred in some parts. With these exceptions the sanitary condition is good. The public buildings are in good condition.

CHEROKEE—Dr. J. F. Abernathy, Murphy. The health of this county is only fair at present, owing to an existing epidemic of *La Grippe*. There have occurred five cases of meningitis, with one death. Preparation is being made for the erection of a new court-house.

CHOWAN—Dr. R. H. Winborne, Baintz. No report.

CLAY—No Board of Health.

CLEVELAND—Dr. O. P. Gardner, Shelby.

Pneumonia has prevailed in some portions of the county, and there have been a few cases of whooping-cough. The sanitary condition of the county and public buildings is good.

COLUMBUS—Dr. Isaac Jackson, Whiteville. Influenza has been epidemic in all portions of the county. There has been reported one case of typhoid fever. The sanitary condition of the county is good, also that of the public buildings.

Craven—Dr. Leinster Duffy, New Berne. No report.

CUMBERLAND—Dr. J. H. Marsh, Fayetteville. Measles have been epidemic in all parts of the county. The sanitary condition of the county and public buildings is good.

CURRITUCK—No Board of Health.

DARE—No Board of Health.

DAVIDSON—Dr. R. L. Payne, Jr., Lexington. The sanitary condition of the county is good. No epidemic has prevailed. Condition of the public buildings remains unchanged.

DAVIE—No Board of Health.

DUPLIN—Dr. J. W. Blount, Kenansville. Measles have prevailed in some portions of the county. There is a considerable amount of sickness in the county now. *La Grippe* is very prevalent, more so than last winter and a more severe form, with pneumonia following in a good many cases. The sanitary condition of the poor-house is good; very little sickness among the inmates.

DURHAM—Dr. N. M. Johnson, Durham. The sanitary condition of public buildings is good. No report on the nature of existing diseases.

EDGECOMBE—Dr. J. M. Baker, Tarboro. The epidemic of scarlatina that prevailed in Tarboro has entirely ceased. The sanitary condition of the county is good. The jail is new and well kept. The poor-house is one of the best in the State, and sanitary condition good.

FORSYTH—Dr. D. N. Dalton, Winston. No report.

FRANKLIN—Dr. E. S. Foster, Louisburg. Measles have prevailed in the southern part of the county. The sanitary condition of the

county is very good indeed; also that of the public buildings.

GASTON—Dr. E. B. Holland, Dallas. *La Grippe* has prevailed in all portions of the county. The sanitary condition of the county is good; also that of the public buildings.

GATES—No Board of Health.

GRAHAM—No Board of Health.

GRANVILLE—Dr. J. M. Hays, Oxford. No report.

GREENE—Dr. E. H. Sugg, Snow Hill. Pneumonia and *La Grippe* have prevailed in the county, with some few cases of typhoid and other fevers. The sanitary condition of the county is good. There has been an epidemic of distemper among horses. Sanitary condition of public buildings is good.

GUILFORD—Dr. E. R. Michaux, Greenboro. No report.

HALIFAX—Dr. A. B. Pierce, Weldon. Many cases of measles and some of whooping-cough have occurred. Catarrhal fevers have prevailed in many portions of the county. There is little general sickness, except catarrh or *La Grippe*. One case of cerebro-spinal meningitis reported. No improvement in the public buildings since last report.

HARNETT—No Board of Health.

HAYWOOD—Dr. R. L. Allen, Waynesville. No report.

HENDERSON—Dr. W. B. Reese, Hendersonville. Pneumonia and *La Grippe* have prevailed generally. Two cases of diphtheria reported. The sanitary condition of the county is very good. *La Grippe*, pneumonia and rheumatism attributable to the variability of the weather, and not very malignant. The sanitary condition of the public buildings is good. Our jail has all the modern improvements, and is well kept; poor-house well located in the country, and is neatly kept.

HERTFORD—No Board of Health.

HYDE—No Board of Health.

IREDELL—Dr. M. W. Hill, Statesville. The sanitary condition of the county, so far as known, is good. Have heard of some pneumonia, bronchitis, etc., but it is not very general. I receive reports from only one physician,

Dr. Chenauth. The sanitary condition of the jail is about as usual; that of the poor-house is good, the recent improvements rendering the inmates much more comfortable.

JACKSON—Dr. J. M. Candler, Dillsboro. Measles in mild form have prevailed in the county. The sanitary condition of the county is good; also that of the public buildings.

JOHNSON—Dr. L. L. Sasser, Smithfield. Bronchial affections have prevailed. The sanitary condition of the county is good; also that of the public buildings is good. There are some steps being taken to rebuild and improve the poor-house, and to establish a county work-house in the county.

JONES—Dr. C. B. Woodley, Trenton. Influenza has prevailed in nearly all portions of the county. There is some malarial fever; also a few cases of pneumonia. The sanitary condition of the county is good. The sanitary condition of the poor-house is good. The jail has not had an inmate for the past two months, and has not been visited by the Superintendent.

LENOIR—No Board of Health.

LINCOLN—Dr. W. L. Crouse, Lincolnton. Influenza has prevailed in all portions of the county. With this exception the health of the county is good. Public buildings are well kept and now roomy enough.

MACON—Dr. J. M. Lyle, Franklin. One case of diphtheria and two of typhoid fever reported. Influenza is the prevailing disease this month. There has been some distemper among horses. There are no inmates in either jail or poor-house, and the sanitary condition of these buildings is good.

MADISON—No Board of Health.

MARTIN—Dr. W. H. Harrell, Williamston. Pneumonia, bronchitis, catarrhal fever, etc., have prevailed in several portions. Colds, coryza, etc., due to climatic influence, have been general. Mumps prevailed in all portions. Some typhoid fever and one case of hæmorrhagic malarial fever. More sickness than ever before at this season. The sanitary condition of public buildings is good. My report on prevailing diseases is very imperfect, because I cannot get the physicians to report. I only

report what comes under my own observation.

McDOWELL—Dr. J. H. Gilkey, Marion. Pneumonia and bronchitis have prevailed in many portions. Catarrhal fever has also prevailed very extensively; caused by so much rain and dampness in the atmosphere. The sanitary condition of the county and public buildings is good.

MECKLENBURG—No Board of Health.

MITCHELL—Dr. C. E. Smith, Bakersville. As I have just been appointed Superintendent of Health, I cannot give the condition of the jail and poor-house. There has been one death reported from typhoid fever and one new case. Influenza has been epidemic. There are still a few cases of jaundice in the county.

MONTGOMERY—No Board of Health.

MOORE—Dr. Gilbert McLeod, Carthage. Influenza has prevailed more or less throughout the county. There has been more sickness than usual at this season of the year. Influenza, bronchitis, tonsillitis and colds are the prevailing diseases. Four cases of meningitis are reported from the north-eastern part of the county. The sanitary condition of the public buildings is good. Some needed repairs have been made at the poor-house.

NASH—Dr. G. W. Lewis, Spring Hope. Typhoid fever, diphtheria and influenza have prevailed. The sanitary condition of the county is fairly good, but could be improved very much by proper drainage. Our little town is very defective in that particular. Our jail and poor-house are in very good condition at present. We are having a good deal of influenza.

NEW HANOVER—Dr. F. W. Potter, Wilmington. On account of the frequent changing of the prisoners in the jail, I find it hard to ascertain correctly all who have been vaccinated. This is not the case with the other institutions. I have successfully vaccinated all at the poor-house and house of correction; also many of the children at the Episcopal Home and colored children at the Gregory Institute; also many children in private families. Two cases of measles and two of diphtheria have been reported. Influenza has prevailed in nearly all portions. It has not proven fatal. The

sanitary condition of the public buildings is good. At the poor-house and house of correction new bedding for each inmate has been provided by the newly appointed Superintendent, Mr. Pickett.

NORTHAMPTON—Dr. H. W. Lewis, Jackson. Eight cases of typhoid and one of hæmorrhagic malarial fever have been reported. *La Grippe* has prevailed in all portions of the county. There has been an epidemic of distemper among horses. The sanitary condition of the county is as good as usual. I cannot get the doctors to report, so can only report what occurs in my own practice. The County Commissioners have asked the Legislature to allow them to issue bonds for \$10,000 to build a new jail; and say they intend to spend about \$800 in improvements at the poor-house.

ONslow—Dr. J. L. Nicholson, Richlands. I have to report influenza in epidemic form in central and western portions of the county, gastro-enteritis among children in the upper portions; many cases of mumps; many cases of scabies, and a few cases of malarial fever. The sanitary condition of the jail is fairly good, that of the poor-house bad, and no efforts at improvement.

ORANGE—Dr. D. C. Parris, Hillsboro. Catarrhal diseases have prevailed in all portions of the county. Sanitary condition of the county is good. Pneumonia, bronchitis and catarrhal fever have prevailed in rather a severe form; rheumatism also frequent. General sanitary condition of public buildings good, with the exception of public school-houses, as heretofore mentioned.

PAMLICO—No Board of Health.

PASQUOTANK—No Board of Health.

PENDER—Dr. S. S. Satchwell, Burgaw. *La Grippe* has extensively prevailed, complicating other thoracic diseases and bowel troubles. I have noticed that this disease is more severe in malarious localities. Our new poor-house is well equipped and creditable to the county. It is situated very near the town.

PERQUIMANS—No Board of Health.

PERSON—No Board of Health.

PITT—Dr. B. T. Cox, Redalia. The sani-

tary condition of the county is good. Pneumonia, bronchitis and malarial fever have made their appearance. Acute otorrhœa has occurred in some localities in very obstinate form. Sanitary condition of public buildings fair, no efforts being made at present at improvement. Great deal of lewdness practiced among the inmates of the poor-house, which, of course, should be corrected. Our overseer has tried several times, but failed.

POLK—Dr. Henry Shankle, Mills' Springs. Five cases of typhoid fever reported. There has been more sickness since the first of January than I ever saw before, but the death-rate has been very small indeed. There have been no efforts to improve the sanitary condition of the public buildings since the last report. Chicken-cholera reported.

RANDOLPH—Dr. J. W. Long, Randleman. There have been reported eighty-three cases of measles, two of whooping-cough, nine of diphtheria, nine of typhoid fever, six of pernicious and one of hæmorrhagic malarial fever, one of cholera, and six of cholera-morbus. Bronchitis, varicella, diarrhœa, pneumonia, rheumatism and influenza have prevailed. There has been an epidemic of distemper among horses and cholera among hogs. The above is rather a bad showing, still it seems there is not a great deal of sickness. The *one case of cholera* reported by Dr. W. A. Fox was peculiar, in that a woman between thirty-five or forty years of age, and in usual health, was taken at 11 A. M. with profuse watery discharge, and when seen by the doctor at 5 P. M. was moribund. The only improvement to public buildings is the building of a new barn at the jail.

RICHMOND—Dr. J. M. Covington, Rockingham. There have been reported seven cases of measles, four of whooping-cough, one of scarlatina, four of diphtheria, and two of typhoid fever. Influenza, bronchitis and pneumonia have prevailed in some portions. The sanitary condition of the county is fairly good; that of the public buildings, except jail, is good.

ROBESON—Dr. R. F. Lewis, Lumberton. *La Grippe* has prevailed in all parts of the county, and measles has been reported. The

county is in fair sanitary condition. The same may be said for the public buildings.

ROCKINGHAM—No Board of Health.

ROWAN—Dr. J. J. Summerell, Salisbury. I hear that some whooping-cough and, also, a few cases of typhoid fever have occurred in some portions of the county. There has been an epidemic of staggers in horses. The sanitary condition of the county is good, as far as I know. We are having in almost every part of the county many cases of influenza; not so severe as last winter, but more so than ordinary catarrh. The public buildings are in good sanitary condition. Our new sheriff lives in the jail, and, I am glad to say, is doing more to have the prisoners and premises cleanly than has been done before.

RUTHERFORD—Dr. W. A. Thompson, Cliffdale. One case of typhoid fever and a few of pneumonia have been reported, and a general epidemic of catarrhal fever, or *La Grippe*, has prevailed. The sanitary condition of the county is as good as you will find in most counties, but far from first-class, as very little attention is given to sanitation. The sanitary condition of the jail has been improved, and is now very good; that of the poor-house is as good as the buildings will admit of.

SAMPSON—Dr. J. A. Stevens, Clinton. Measles, whooping-cough and influenza are prevalent. A few cases of pneumonia and many of bronchitis are reported. Sanitary condition of the jail is not good, while that of the poor-house is excellent. No reports from other physicians.

STANLY—Dr. D. P. Whitley, Plyler. No report.

STOKES—Dr. W. V. McCaulless, Danbury. Four cases of measles and one of diphtheria to report. Pneumonia has prevailed in several portions of the county. The sanitary condition of the county is good; that of the public buildings is good. No improvements since last report.

SURRY—No Board of Health.

SWAIN—Dr. E. M. Scruggs, Bryson City. The prevailing diseases for last month were pneumonia and *La Grippe*, in a mild form; no deaths

occurring from them, as far as I can ascertain. The sanitary condition of the public buildings is not good on account of so much rain. The streets of the town are in a very bad condition, but are being drained as fast as possible.

TRANSYLVANIA—No Board of Health.

TYRRELL—Dr. Ab. Alexander, Columbia. The sanitary condition of the county is good. There has been an epidemic of pleuro-pneumonia among mules and horses, with several deaths. The sanitary condition of public buildings is bad, and no efforts at improvement.

UNION—Dr. W. C. Ramsay, Monroe. Six cases of typhoid fever reported. Catarrhal fever and *La Grippe* have prevailed in nearly all portions of the county. There has been an epidemic of stomach staggers among horses and cholera among hogs. We have had a few cases of pneumonia. Poor-house is in a good condition, but there has been no improvement at the jail.

VANCE—Dr. A. Cheatham, Henderson. Four cases of measles, five of whooping-cough and two of typhoid fever have been reported. The sanitary condition of the county and public buildings is good.

WAKE—Dr. Jas. McKee, Raleigh. There have been reported in the city one hundred and twelve cases of measles and one of typhoid fever. Rubeola and parotiditis have prevailed in all the wards of the city, and the above does not indicate the number, because many do not employ physicians to treat measles and mumps. The sanitary condition of the county is remarkably good. Public buildings are in good condition. The members of the present General Assembly complain of the heat and ventilation, but it is as near perfect as it can be. The catarrhal troubles from which they suffer are due to endemic influences. Citizens who never go to the Capitol suffer from them.

WARREN—Dr. P. J. Macon, Warrenton. *La Grippe*, pneumonia and catarrhal fevers have prevailed throughout the county. The sanitary condition of the county is very good.

WASHINGTON—No Board of Health.

WATAUGA—Dr. W. B. Councill, Boone. No sickness of any note has prevailed in any part

of the county. The sanitary condition of the county and public buildings is first-class.

WAYNE—Dr. W. H. Cobb, Jr., Goldsboro. Catarrhal fever, *La Grippe* and varicella have prevailed in town and some portions of the county. Cases of pneumonia, bronchitis, whooping-cough, German measles and diarrhœa have been reported. Ophthalmia has been quite prevalent in some sections. Eczema and scabies, especially the latter, are abundant. The public buildings are in a fair condition. Again I am glad to report our jail without a prisoner.

WILKES—No Board of Health.

WILSON—Dr. Albert Anderson, Wilson. We are going to try to improve the sanitary condition of our jail and poor-house, it being now

only ordinarily good. Hope to report improvement by next report. No report on diseases.

YADKIN—Dr. T. R. Harding, Yadkinville. Mumps and whooping-cough have prevailed in nearly all portions. Pneumonia has been very severe in certain portions of the county. Intermittent fever has also been severe. One case of hæmorrhagic malarial fever has occurred. Sanitary condition of public buildings about as at last report.

YANCEY—Dr. J. L. Ray, Burnsville. One case of typhoid fever has been reported. The health of the county has been unusually good for the past month. The sanitary condition of the public buildings, as usual, is not very good. There is some talk of improvement, but nothing more.

Condition of Jails and Poor-houses by Counties for January, 1891.

COUNTIES.	JAIL.				POOR-HOUSE AND HOUSE OF CORRECTION.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....	2	800	.....	.....	40	500	.....	.....
Alexander.....	2	800	0	1	12	600	0	4
Ashe.....	.....	.....	.....	.....	.....	.....	.....	.....
Alleghany.....	.....	.....	.....	.....	.....	.....	.....	.....
Anson.....	.....	.....	.....	.....	.....	.....	.....	.....
Beaufort.....	.....	.....	.....	.....	.....	.....	.....	.....
Bertie.....	.....	.....	.....	.....	.....	.....	.....	.....
Bladen.....	2	.....	.....	.....	6	.....	.....	.....
Brunswick.....	.....	.....	.....	.....	.....	.....	.....	.....
Buncombe.....	.....	.....	.....	.....	.....	.....	.....	.....
Burke.....	.....	.....	.....	.....	.....	.....	.....	.....
Cabarrus.....	.....	.....	.....	.....	.....	.....	.....	.....
Caldwell.....	.....	.....	.....	.....	.....	.....	.....	.....
Camden.....	.....	.....	.....	.....	.....	.....	.....	.....
Carteret.....	0	.....	.....	.....	0	.....	.....	.....
Caswell.....	0	.....	.....	.....	24	1,000	9	3
Catawba.....	6	500	2	3	27	800	9	9
Chatham.....	2	.....	.....	.....	28	.....	.....	.....
Cherokee.....	1	*	.....	1	2	*	.....	.....
Chowan.....	.....	.....	.....	.....	.....	.....	.....	.....
Clay.....	.....	.....	.....	.....	.....	.....	.....	.....
Cleveland.....	12	684	.....	7	27	997	.....	6
Columbus.....	4	*	.....	0	11	*	.....	0
Craven.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland.....	3	.....	.....	2	18	.....	.....	4
Currituck.....	.....	.....	.....	.....	.....	.....	.....	.....
Dare.....	.....	.....	.....	.....	.....	.....	.....	.....
Davidson.....	4	*	0	0	21	721	0	4
Davie.....	.....	.....	.....	.....	.....	.....	.....	.....
Duplin.....	.....	.....	.....	.....	16	*	.....	.....
Durham.....	3	1,000	.....	1	31	1,000	.....	7
Edgecombe.....	2	*	4	3	21	*	.....	.....
Forsyth.....	.....	.....	.....	.....	.....	.....	.....	.....

* Space exceeds 1,000 cubic feet.

Condition of Jails and Poor-houses by Counties for January, 1891. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Franklin	4			2	20			4
Gaston	6		3	4	12			
Gates								
Graham								
Granville								
Greene	1	500		1	10	1,000		1
Guilford						*		
Halifax	8			7	53			10
Harnett								
Haywood								
Henderson	4	*	1	1	5	*		1
Hertford								
Hyde								
Fredell	12	935			20	554		
Jackson	1	200	1	1	3	300	2	2
Johnston	6	*	4	4	16	1,400	6	5
Jones					4	*		
Lenoir								
Lincoln	5	*			21	500		
McDowell	3	600	1	2	7	550	2	1
Macon								
Madison								
Martin	5	500	1	1	12	400	2	3
Mecklenburg								
Mitchell								
Montgomery								
Moore	10	960	0	4	8	*	0	2
Nash	5		2	1	35		10	5
New Hanover	50	550	20	16	22	1,000	22	9
Northampton					38	800	12	10
Onslow	3	*		1	3	*		1
Orange	4	512	2	3	25	*	12	
Pamlico								

* Space exceeds 1,000 cubic feet.

Condition of Jails and Poor-houses by Counties for January, 1891. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....								
Perquimans.....								
Person.....								
Pitt.....					21			
Polk.....	3	*	0	3	4	800		0
Randolph.....	7	960	3	3	35	462	10	11
Richmond.....	7				6			
Robeson.....	15	460			9	800		
Rockingham.....								
Rowan.....	14	600	4	5	15	*	3	
Rutherford.....	3	*		0	25	740		7
Sampson.....	2				18			
Stanly.....								
Stokes.....	5	600	1	1	10	660	2	4
Surry.....								
Swain.....								
Transylvania.....								
Tyrrell.....	0				3	*	0	0
Union.....	6			2	15	*		1
Vance.....	17	598			14	*		
Wake.....	5	*			103			
Warren.....	5	*	3	5	18	*	10	3
Washington.....								
Watauga.....								
Wayne.....	0				9	*	1	1
Wilkes.....								
Wilson.....	7	*	1	4	19	*	7	5
Yadkin.....	3		0	1	23		0	9
Yancey.....	1	*	1	1				

* Space exceeds 1,000 cubic feet.

Meteorological Report for January, 1891.

STATIONS.	TEMPERATURE.										NO. DAYS.				Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	on which rain fell, including hail, snow and sleet.	
Chapel Hill.....																
Chat'oga, Tenn.	42.0	69.0	31	26.0	5	43.0	.....	27.0	6	5.0	9	5	11	15	15	6.31 N. E.
Charleston, S. C.																
Charlotte.....	43.1	69.0	30	24.0	5	45.0	.....	31.0	19	3.0	16	16	2	13	12	3.92 S. W.
Columbia, S. C.	44.1	75.2	31	25.2	(a)	50.0	.....	28.6	27	11.7	9	19	5	7	11	3.21 S. W.
Hatteras	47.0	67.0	2	32.0	8	35.0	.....	22.0	21	4.0	12	12	10	9	10	6.05 N.
Kitty Hawk.....	46.7															3.50
Knox'le, Tenn	40.0	71.0	31	22.0	5	49.0	.....	25.0	31	2.0	2	7	10	11	14	4.36 S. W.
Lynchburg, Va.	38.5	64.0	30	19.0	6	45.0	.....	30.0	27	3.0	31	14	6	11	13	6.04 W.
Norfolk, Va.....	43.0	67.0	30	25.0	6	42.0	.....	25.0	21	5.0	18	15	8	8	11	2.86 N.
Raleigh.....																
Southport.....	46.6	63.5	29	28.0	6	35.5	.....	22.0	(b)	6.5	17	14	7	10	9	5.38 S. W.
Wake Forest.....																
Wilmington	48.0	75.0	31	26.0	8	49.0	.....	23.0	.....	6.0	.....	13	8	10	7	4.46 N. W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C.						
Chattanooga, Tenn	31.154	30.519	8	29.519	1	1.000
Charleston, S. C.						
Charlotte, N. C.	30.120	30.510	8	29.510	11	1.000
Columbia, S. C.						
Hatteras, N. C.	30.149	30.520	8	29.530	11	.990
Kitty Hawk, N. C.						
Knoxville, Tenn ..	30.160	30.520	7	29.470	1	1.050
Lynchburg, Va	30.138	30.551	8	29.371	11	1.180
Norfolk, Va	30.104	30.532	9	29.338	11	1.194
Raleigh, N. C.						
Southport, N. C.						
Wake Forest, N. C.						
Wilmington, N. C.	30.150	30.500	8	29.520	11	.986

(a) 5th and 8th. (b) 8th and 19th.



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THOMAS F. WOOD, M. D., *Secretary and Treasurer*, Wilmington.

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Funerals and Contagious Diseases.

Strenuous and very commendable efforts are being made by the Pennsylvania State Board of Health to prevent the spread of infectious and contagious diseases. Funeral directors and ministers of the Gospel have been enlisted in the work, and doubtless much good will result. Their assistance has been asked for and obtained through two addresses, which, in pamphlet form, have been scattered broadcast throughout the State. One is by Rev. S. Bridenbaugh, of Norristown, Pa., on "The danger arising from public funerals of those who have died from contagious and infectious diseases," read before the State Sanitary Convention at Norristown, May 10, 1890. The other is addressed to undertakers, and is by Josiah S. Pearce, on "Precautions to be Adopted by Funeral Directors to Prevent the Spread of Contagious and Infectious diseases," having been read in June, 1888, before the Funeral Directors' Association of Pennsylvania, of which he is the President. The views contained in both papers are sound, and could advantageously be spread all over the country.

A grave responsibility rests on the man who prepares for interment the remains of one who died of infectious or contagious disease. The corpse and the furniture of the room are centres of infection, and it remains for the funeral director to decide whether the infection shall be stamped out then and there, or whether it shall start out afresh and invade other homes. With proper knowledge, energy and firmness, he can obtain the former result. Such a desirable end, however, can only be uniformly reached by a State system of registration and examination of funeral directors, with stringent laws to govern them. In default of such regulations, however, the undertaker should use his influence to induce the family of the deceased to dispense with a public funeral in cases of scarlet fever, diphtheria, membranous croup, small-pox, varioloid, typhus fever, yellow fever or measles. Newspaper notices should always state such causes of death. Friends and relatives should be prevented viewing the remains while awaiting sepulture. The undertaker should, in such cases, avoid using chairs, palls or other articles which may be used at other funerals. An ice-box should

never be used.} The main cavities of the body should be injected with a strong antiseptic solution, the body wrapped in a sheet saturated with some antiseptic, placed in a sealed coffin, and interred as soon as possible after death. The corpse, if a child, should not be carried in a carriage. All carriages used should be thoroughly disinfected, and, lastly, the undertaker should take pains not to be himself the means of spreading the contagion. He should have clothing set apart for use in just such cases, and should afterward bathe in an antiseptic solution. In addition to these recommendations the pamphlet gives details as to embalment, disinfection, disinterment and transportation of bodies. The address to the clerical profession is in much the same spirit, and requests that ministers absolutely refuse to hold public services where the deceased died of any of the diseases above mentioned. It also suggests that the clergy residing in cities or boroughs use their influence to have passed suitable health laws prohibiting public funerals in cases of contagious disease. Such recommendations are perfectly useless in many cities, as proper health laws are already in vogue; but the deplorable fact remains that in probably the great majority of municipalities there are no regulations, or, at least, very deficient ones. As an illustration are cited cases in which the ice used to preserve bodies dead from contagious disease was emptied out on the public street, and the box used on the same day in an uninfected house without having been disinfected.—*Medical Record*.

Review of Diseases for February, 1891.

Bronchitis—Reported from Alamance, Alleghany, Iredell, Johnston, Jones, Martin, McDowell, Onslow, Pitt, Randolph, Rowan, Sampson, Stanly and Wayne—14 counties.

Catarrhal Fever, La Grippe, Influenza—From Alamance, Alexander, Alleghany, Anson, Caswell, Chatham, Columbus, Duplin, Durham, Gaston, Greene, Halifax, Iredell, Jones, Lincoln, McDowell, Macon, Mitchell, Moore, New Hanover, Onslow, Orange, Pender, Pitt,

Polk, Randolph, Richmond, Rowan, Rutherford, Sampson, Stanly, Swain, Union, Vance, Warren, Wayne and Yancey—37 counties.

Chicken Pox—From Greene and Warren—2 counties.

Cholera—From Randolph.

Cholera (chickens)—From Johnston.

Cholera (hogs)—From Johnston, Mitchell and Union—3 counties.

Consumption—From Iredell.

Croup (membranous)—From Iredell.

Diabetes Mellitus—From Iredell.

Diphtheria—From Alleghany, Cabarrus, Halifax, Randolph and Stokes—5 counties.

Distemper—From Alleghany, Johnston, New Hanover, Stanly and Yancey—5 counties.

Erysipelas—From Iredell.

Glossitis—From Pitt.

Jaundice—From Lincoln.

Malarial Fever—From Guilford, Johnston, Jones, Pender, Pitt and Sampson—6 counties.

Malarial Fever (hemorrhagic)—From Cabarrus, Martin and New Hanover—3 counties.

Measles—From Bladen, Columbus, Cumberland, Duplin, Edgecombe, Franklin, Guilford, Halifax, Iredell, Jackson, Johnston, Macon, Martin, Moore, New Hanover, Onslow, Orange, Pitt, Randolph, Robeson, Sampson, Stokes, Swain, Vance, Wake and Wayne—26 counties.

Meningitis—From Moore and Pitt—2 counties.

Meningitis (tubercular)—From Stokes.

Mumps—From Martin, Onslow and Polk—3 counties.

Pneumonia—From Alamance, Caswell, Chatham, Duplin, Durham, Gaston, Greene, Guilford, Iredell, Jones, Martin, McDowell, Nash, Pender, Pitt, Polk, Randolph, Rowan, Sampson, Stanly, Stokes, Vance, Warren and Wayne—24 counties.

Pleurisy—From Guilford.

Rheumatism—From Alamance, Martin and Orange—3 counties.

Roseola—From Moore.

Rubeola—From Alamance.

Scabies—From Halifax.

Scarlatina—From Durham, Edgecombe, Halifax, Stokes, Wake and Wayne—6 counties.

Staggers—From Alexander.

Tonsillitis—From Moore and Orange—2 counties.

Typhoid Fever—From Alamance, Alexander, Cabarrus, Mitchell, Nash and Randolph—6 counties.

Varicella—From Alamance and Nash—2 counties.

Whooping-cough—From Alexander, Cabarrus, Johnston, Mitchell, New Hanover, Robeson, Stanly, Vance and Wayne—9 counties.

Summary of Mortuary Statistics for February, 1891.

(FOURTEEN TOWNS.)

	White.	Col'd.	Total.
Aggregate population.	42,539	37,687	80,226
Aggregate deaths.....	39	57	96
Temporary annual death-rate per 1,000.....	11.1	15.1	14.3
Deaths under 5 years old,			30
<i>Causes of death.</i>			
Measles	1	1	2
Pneumonia	7	6	13
Consumption.....	4	13	17
Heart diseases.....	3	3	6
Neurotic diseases	2	1	3
Diarrhœal diseases...	0	3	3
All other diseases....	21	23	44
Accident and violence	1	1	2
Still-born.....	0	6	6
Total.....	39	57	96

Summary of Reports from County Superintendents of Health for February, 1891.

Alamance—Dr. G. W. Long, Graham. Catarrhal fever of a severe form prevails in the county, complicated, in some cases, with pneumonia, bronchitis, rheumatism and, now and then, with typhoid fever. Varicella and rubella prevail in some sections. The sanitary condition of public buildings is fairly good; no efforts to improve the condition of the jail,

further than that the jailer lives in the building. The people seem to be a little more appreciative of the efforts of the Board. The Commissioners raised the salary of the Superintendent from \$100 to \$150.

Alexander—Dr. J. B. Watts, Taylorsville. Several cases of whooping-cough have been reported. There has occurred only one case of typhoid fever in the county during the month. *La Grippe* has been epidemic throughout all sections of the county, and staggers have been epidemic among horses. The sanitary condition of the county, so far as my own observation goes, is very good, but I receive no advices from the other doctors. The sanitary condition of the poor-house is very good, except the water supply, which will be soon remedied. That of other public buildings is very good, except the school-houses, which can and will be better arranged in the future.

Alleghany—Dr. George Doughton, Sparta. Five cases of diphtheria have been reported. Influenza has prevailed in many portions of the county, and there has been an epidemic of distemper among horses. The health of the people is better than usual at this season; only a few cases of bronchitis to report. The sanitary condition of public buildings is tolerably good.

Anson—Dr. E. F. Ashe, Wadesboro. A severe form of *La Grippe* has prevailed throughout the county. It has been fatal in a few cases, principally among young children and old persons. The jail is kept in good sanitary condition, but not very secure. Efforts are being made to improve both jail and court-house.

Ashe—No Board of Health.

Beaufort—Dr. W. A. Blount, Washington. No Report.

Bertie—No Board of Health.

Bladen—Dr. Newton Robinson, Elizabethtown. I have nothing new to report for February except a few cases of measles. The health of the county is good.

Brunswick—No Board of health.

Buncombe—Dr. H. B. Weaver, Asheville. No report.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. S. Young, Concord. There have been reported ten cases of whooping-cough, four of diphtheria, four of typhoid fever and one of hæmorrhagic malarial fever. The sanitary condition of the county is good, also that of the public buildings.

Caldwell—Dr. A. A. Kent, Lenoir. No report.

Camden—No Board of Health.

Carteret—Dr. M. F. Arendell, Morehead City. Our county is generally healthy. The sanitary condition of public buildings is good.

Caswell—Dr. R. H. Williamson, Yanceyville. Pneumonia, typhoid pneumonia and *La Grippe* have prevailed in all portions of the county. The sanitary condition of the county is good. Also that of the public buildings.

Catawba—Dr. J. M. McCorkle, Newton. No report.

Chatham—Dr. H. T. Chapin, Pittsboro. Pneumonia and *La Grippe* have prevailed in nearly all parts of the county. The sanitary condition of the county is very good at present, but the past month has been very wet. Poor-house and jail are in good sanitary condition.

Cherokee—Dr. J. F. Abernathy, Murphy. No report.

Chowan—Dr. R. H. Winborne, Barnitz. No report.

Clay—No Board of Health.

Cleveland—Dr. O. P. Gardner, Shelby. The sanitary condition of the county is much better than usual; no contagious disease has prevailed. The county is making preparations to build a ten thousand dollar jail.

Columbus—Dr. I. Jackson, Whiteville. A few cases of measles have been reported. Influenza was epidemic all over the county during the first part of the month, but has disappeared. The sanitary condition of the county and public buildings is good.

Craven—Dr. Leinster Duffy, New Berne. No report.

Cumberland—Dr. J. H. Marsh, Fayetteville. Measles have prevailed in epidemic form in

many parts of the county. The sanitary condition of the county is tolerably good. That of the public buildings is good.

Curruck—No Board of Health.

Dare—No Board of Health.

Davidson—Dr. R. L. Payne, Jr., Lexington. We have had no epidemics. The sanitary condition of the county is good and there is very little sickness in our midst. No change in the condition of the public buildings.

Davie—No Board of Health.

Duplin—Dr. J. W. Blount, Kenansville. Measles have prevailed in some portions of the county. There has been a large amount of sickness in the county during the month. Influenza and pneumonia have been very prevalent. The sanitary condition of the public buildings is good, and there is very little sickness among the inmates.

Durham—Dr. N. M. Johnston, Durham. Scarletina (sporadic) has prevailed in slight degree. There is quite a large amount of influenza and pneumonia. The sanitary condition of the public buildings is good.

Edgecombe—Dr. Donald Williams, Tarboro. There have been reported seventeen cases of measles and two of scarlatina. Measles prevailed in Tarboro. The sanitary condition of the county is good.

Forsyth—Dr. D. N. Dalton, Winston. No report.

Franklin—Dr. E. S. Foster, Louisburg. Measles have prevailed in southern parts of the county, but other than this there has been very little sickness. Sanitary condition of the public buildings is good.

Gaston—Dr. E. B. Holland, Dallas. *La Grippe* and pneumonia have prevailed in all parts of the county. The sanitary condition of the county is good. Also that of the public buildings.

Gates—No Board of Health.

Graham—No Board of Health.

Granville—Dr. J. M. Hays, Oxford. There will be a considerable improvement made in the court-house building soon. All other buildings in good condition.

Greene—Dr. E. H. Sugg, Snow Hill. *La Grippe* has prevailed in the county, but there have been a good many cases of pneumonia. The sanitary condition of the county is, as usual, good. Several cases of chicken-pox have been reported. Sanitary condition of public buildings has been good.

Guilford—Dr. E. R. Michaux, Greensboro. The health of the county has been remarkably good, considering the bad weather. However, we have had a good deal of pneumonia, pleurisy, malarial fever and measles; also a few cases of bowel trouble. Pneumonia, especially in the country, has been rather more fatal than usual. The sanitary condition of public buildings is quite good as long as cold weather continues, but when summer comes our jail will undoubtedly need some improvements in the arrangements for getting rid of the excrement.

Halifax—Dr. A. B. Pierce, Weldon. There have been reported some cases of scarlatina, one of diphtheria, and a good many of measles. Measles and catarrhal fever have prevailed in some parts of the county. The sanitary condition of the county is good. The *Grippe* has been generally of mild form and amenable to treatment. An eruption resembling scabies has prevailed. There has been some improvement in the sanitary condition of the poor-house. Jail same as last reported.

Harnett—No Board of Health.

Haywood—Dr. R. L. Allen, Waynesville. No report.

Henderson—Dr. W. B. Reese, Hendersonville. No report.

Hertford—No Board of Health.

Hyde—No Board of Health.

Iredell—Dr. M. W. Hill, Statesville. February has been an exceedingly busy month with the doctors in Iredell. We have had another visitation of *La Grippe*, together with pneumonia, bronchitis, measles, erysipelas, consumption, diabetes mellitus, membranous croup, etc. Quite a number have died from pneumonia, and there was one death from erysipelas. There has been more than the usual amount of sickness. Public buildings are in

their usual condition. No further improvement.

Jackson—Dr. J. M. Candler, Dillsboro. Measles, in a mild form, have prevailed in some portions of the county. The sanitary condition of the county never was better; that of the public buildings is very good.

Johnston—Dr. L. L. Sasser, Smithfield. Five cases of measles and fifteen of whooping-cough reported. Bronchial and malarial troubles have prevailed. There has been an epidemic of distemper among horses and mules, and there has been some cholera among hogs and chickens. The general sanitary condition of the county is good. The surface drainage is not sufficient for these seasons. Sanitary condition of public buildings good.

Jones—Dr. C. B. Woodley, Trenton. Influenza and bronchitis have prevailed in nearly all portions of the county. The sanitary condition of the county is good, so far as can be learned. There have been a few cases of pneumonia and intermittent fever. Sanitary condition of the public buildings is good.

Lenoir—No Board of Health.

Lincoln—Dr. W. L. Crouse, Lincolnton. *La Grippe* has prevailed in all portions of the county. There has been an epidemic among horses thought to be due to the feeding of faulty corn; quite a number have died. The sanitary condition of the county is good. There has been an epidemic of jaundice, especially among factory operatives; none fatal. Both jail and poor-house are well kept and in good sanitary condition.

Macon—Dr. J. M. Lyle, Franklin. *La Grippe* has prevailed, and there have been a few cases of measles. The sanitary condition of the county is good.

Madison—Office of Superintendent of Health discontinued.

Martin—Dr. H. W. Harrell, Williamston. Four cases of measles and one of hæmorrhagic malarial fever reported. Mumps and measles have prevailed in several portions of the county. Coughs, colds and bronchitis, with an occasional case of pneumonia; a few cases of muscular

rheumatism reported. Sanitary condition of public buildings is good.

McDowell—Dr. J. H. Gilkey, Marion. Influenza and bronchitis have prevailed in some parts of the county. Influenza has prevailed quite extensively, resulting frequently in pneumonia and bronchitis, and in a few instances proving fatal. With this exception the general sanitary condition of the county is very good, also of the public buildings.

Mecklenburg—No Board of Health.

Mitchell—Dr. C. E. Smith, Bakersville. *La Grippe* in epidemic form has prevailed in this county for the past 30 or 40 days—no deaths. There has been an epidemic of cholera among hogs. Sanitary condition of the county is good. Two cases of whooping-cough and one of typhoid fever. Sanitary condition of public buildings is very good at present—both could be made more healthful.

Montgomery—No Board of Health.

Moore—Dr. Gilbert McLeod, Carthage. Measles have prevailed in different portions of the county. There has been too much rain and cloudy weather for the sanitary condition to be as good as usual. Influenza, tonsilitis and catarrhal troubles have prevailed. There have been twenty-five or thirty cases of roseola in Carthage. Six cases meningitis, with two deaths, have been reported from the north-eastern part of the county. The sanitary condition of public buildings is good.

Nash—Dr. G. W. Lewis, Spring Hope. Varicella has prevailed in this section of the county. The sanitary condition of the county is good. We have had a few cases of typhoid fever, also a few cases of pneumonia reported. The condition of our jail and poor-house is good. I am informed that there will be some additions made to our poor-house in the way of buildings.

New Hanover—Dr. F. W. Potter, Wilmington. I would respectfully report that the number of diseases in my report is only approximate. I could not come up with a few physicians, and one or two of those I did see had not the time to count up the cases. I have called our authorities' attention to our market

houses, and asked them to require all stalls to be raised a foot above the floor that they may be cleared of all filth before closing each day. I have to report three cases of measles, two of whooping-cough and one of hæmorrhagic malarial fever. There has been some catarrhal trouble among horses. The sanitary condition of the county, with the exception of the prevalence of influenza, is good. That disease does not seem to be as violent as last year, and yields more readily to treatment if applied early. The jail is in fair order; improvements are being made to the grounds at the poor-house.

Northampton—Dr. H. W. Lewis, Jackson. No report.

Onslow—Dr. J. L. Nicholson, Richlands. Influenza has prevailed in all parts of the county. Also mumps, bronchitis and measles. Condition of the jail and its keeping fairly good. Poor-house kept in a cleanly condition, but, as before stated, entirely unfit for a home for such as use it.

Orange—Dr. D. C. Parris, Hillsboro. Measles has been epidemic. Catarrhal diseases have prevailed. Sanitary condition of the county not so good. Catarrhal fever, rheumatism and throat troubles, mostly tonsilitis, have prevailed. Sanitary condition of the public buildings fairly good.

Pamlico—No Board of Health.

Pasquotank—No Board of Health.

Pender—Dr. S. S. Satchwell, Burgaw. During the month of February there has been an increase of that troublesome disease, *La Grippe*, and it has been marked by a high degree of severity. Pneumonia has extensively prevailed, and, where complicated by *La Grippe*, has assumed a severe form. During the warm spell of February malaria has appeared, giving to the prevailing diseases a malarial feature, more or less distinct.

Perquimans—No Board of Health.

Person—No Board of Health.

Pitt—Dr. B. T. Cox, Redalia. *La Grippe*, measles, bronchitis and malarial fevers have prevailed in most all portions of the county.

A few cases of pneumonia and one case of meningitis have been heard from. One case of glossitis. Sanitary condition of county good; that of public buildings good.

Polk—Dr. Henry Shankle, Mills' Springs. Mumps has prevailed in several portions of the county. The health of the county is not very good. Colds and pneumonia are giving trouble, and *La Grippe* has prevailed to a certain extent. The jail is in tolerably good condition; poor-house not so good.

Randolph—Dr. J. W. Long, Randleman. There have been reported fourteen cases of measles, two of diphtheria and one each of typhoid fever and cholera. *La Grippe*, catarrhal fevers, bronchitis and pneumonia have prevailed throughout the county. The most common diseases we are having now are those peculiar to the cold weather—acute catarrhs. Reports received from Doctors Dowd, Caddell, Redding, McCauless and Daligny. The sanitary condition of the public buildings is moderately good. Poor-house and jail are both overcrowded.

Richmond—Dr. J. M. Covington, Rockingham. Influenza of mild type has prevailed throughout the county. The general sanitary condition of the county is good; that of the public buildings is good, with the exception of the jail.

Robeson—Dr. R. F. Lewis, Lumberton. Considering the large rain-fall, the sanitary condition of the county is good. Measles and whooping-cough both reported. The public buildings are in fair condition; improvements to be made immediately.

Rockingham—No Board of Health.

Rowan—Dr. J. J. Summerell, Salisbury. *La Grippe*, pneumonia and bronchitis have prevailed in all portions of the county. These have been quite as prevalent as they were twelve months ago, and, I believe, quite as severe. The public buildings are in good sanitary condition. The jail is well kept, and so is the poor-house. If we had a better conducted jail, with its present management, I think our prison would be all that we could desire in that line.

Rutherford—Dr. W. A. Thompson, Cliffdale. *La Grippe* has prevailed in the town. The sanitary condition of the county is good. That of the jail has been improved and that of the poor-house is good.

Sampson—Dr. J. A. Stevens, Clinton. The sanitary condition of the county is fairly good. Some cases of malarial fever, many of influenza and measles, and a few of bronchitis and pneumonia have occurred. I cannot get the other physicians to send reports. Public buildings are as last reported.

Stanly—Dr. D. P. Whitley, Plyler. There has been an abundance of sickness in the western and north-western parts of the county. Influenza and whooping-cough have been quite extensive. There have been also many cases of bronchitis and a few severe cases of pneumonia. Distemper is raging among horses in all portions of the county. The sanitary condition of the public buildings is good.

Stokes—Dr. W. V. McCauless, Danbury. There have been reported eighteen cases of measles, one of scarlatina and four of diphtheria. The sanitary condition of the county has been first-rate. Measles have prevailed in the southern part of the county. One case of tubercular meningitis and one of broncho-pneumonia reported. Sanitary condition of public buildings is fair.

Swain—No Board of Health.

Swain—Dr. R. L. Davis, Bryson City. There have been reported twelve cases of measles. The sanitary condition of the county has been very good, only a few cases of *La Grippe* in a mild form. The sanitary condition of the public buildings is not good, owing to so much rain.

Transylvania—No Board of Health.

Tyrrell—Dr. Ab. Alexander, Columbia. The sanitary condition of the county is good. No sickness to report. The public buildings are in a bad sanitary condition.

Union—Dr. W. C. Ramsay, Monroe. Catarrhal affections and *La Grippe* have prevailed in all portions of the county. No fatality that I have heard of. Hog cholera has been epi-

demic. Poor-house is in good condition—jail bad.

Lance—Dr. A. Cheatham, Henderson. I have to report ten cases of measles and fifteen of whooping-cough. The sanitary condition of the county is very good. Besides the above named diseases we had *La Grippe*, pneumonia, etc. The sanitary condition of the public buildings is good. The jail will be improved in appearance by a coat of paint, to be applied at once.

Wake—Dr. Jas. McKee, Raleigh. I have to report fifty cases of measles and three of scarlatina. Measles have prevailed in all portions of the city. The sanitary condition of the county could not be better. That of all public buildings can only be improved on by new and improved methods of sanitation.

Warren—Dr. P. J. Macon, Warrenton. Pneumonia, chicken-pox and *La Grippe* have prevailed in all portions of the county. The sanitary condition of the county is good, as also that of the public buildings.

Washington—No Board of health.

Wayne—Dr. W. H. Cobb, Jr., Goldsboro. We have not had very much sickness during the past month. Pneumonia, bronchitis, catarrhal fever and a few cases of *La Grippe* have occurred. We have had a few cases of mild scarlet fever, all recovered; also several cases of measles and whooping-cough. The jail has been carefully overhauled, the interior painted,

cells cleaned and ceiling made new. No prisoners in jail. Poor-house is well kept and the inmates well cared for.

Wilkes—No Board of Health.

Wilson—Dr. Albert Anderson, Wilson. Our doctors reported remarkably well for last month. It is the first time they have ever reported. I sent blanks to eleven, and have ten answers on file, representing every part of the county. It took a good deal of work in the way of written solicitation. I hope to do as well next month. There has been a great improvement in the sanitary condition of the poor-house, especially among the colored, where it was most needed. That of the jail has been good for several months—better now, perhaps, than ever. I am especially gratified at the improvement at the poor-house among the colored. Have had an epidemic of measles. *La Grippe* prevalent; in some cases severe, followed by pneumonia, with fatal results. Distemper and eczema among horses. Cholera among hogs.

Yadkin—Dr. T. R. Harding, Yadkinville. No report.

Yancey—Dr. J. L. Ray, Burnsville. *La Grippe* has prevailed in some portions of the county. The sanitary condition of the county is tolerably good, but not as good as in January. There has been an epidemic of distemper in horses. The jail needs covering, and is not kept very well; some talk of improvement. No deaths in Burnsville in February.

Condition of Jails and Poor-houses by Counties for February, 1891.

COUNTIES.	JAIL.				POOR-HOUSE AND HOUSE OF CORRECTION.			
	Number prisoners confined.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....								
Alexander.....	2	600	0	1	12	650	0	3
Ashe.....								
Alleghany.....	2			1	1			
Anson.....	3				9			
Beaufort.....								
Bertie.....								
Bladen.....								
Brunswick.....								
Buncombe.....								
Burke.....								
Cabarrus.....	9	*	0	4	18	*	6	10
Caldwell.....								
Camden.....								
Carteret.....	0				0			
Caswell.....	1	500			24	1,000	9	3
Catawba.....								
Chatham.....	0				32			
Cherokee.....								
Chowan.....								
Clay.....								
Cleveland.....	8	684		3	25	997		6
Columbus.....	3	*		0	11	*		0
Craven.....								
Cumberland.....	0				16			5
Currituck.....								
Dare.....								
Davidson.....	4	*	0	0	21	721	0	3
Davie.....								
Duplin.....	0				17			
Durham.....	4				34a			
Edgecombe.....	3	*	0	0	22	*	5	2
Forsyth.....								

* Space exceeds 1,000 cubic feet. a. Includes 17 in house of correction.

Condition of Jails and Poor-houses by Counties for February, 1891. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Franklin.....	4			2	20			4
Gaston.....	5				13			
Gates.....								
Graham.....								
Granville.....	2	*			24	750		
Greene.....	1	500		1	10	1,000		1
Guilford.....	5	*			31	*		
Halifax.....	12			7	53			10
Harnett.....								
Haywood.....								
Henderson.....								
Hertford.....								
Hyde.....								
Iredell.....	12				20			
Jackson.....	1				4			
Johnston.....	4	*	3	2	13	1,000	5	3
Jones.....					4	*		
Lenoir.....								
Lincoln.....	4	*			20	500		
McDowell.....	2	600	1	1	8	550	1	1
Macon.....	3		1	2				
Madison.....								
Martin.....	1	1,000	0	2	12	500	2	3
Mecklenburg.....								
Mitchell.....	3				8			
Montgomery.....								
Moore.....	10	900	0	6	8	*	0	2
Nash.....	3		0	2	35	800	5	8
New Hanover.....	28	600		10	23a	*	22	8
Northampton.....								
Onslow.....	6	900			3	*	1	1
Orange.....	2	512			27	*	13	12
Pamlico.....								

* Space exceeds 1,000 cubic feet. a. Includes 3 in house of correction.

Condition of Jails and Poor-houses by Counties for February, 1891. (CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Pasquotank.....								
Pender.....								
Perquimans.....								
Person.....								
Pitt.....	2				22			
Polk.....	2	*	0	2	4			
Randolph.....	15	450	5	4	38	400	11	10
Richmond.....	5				7			
Robeson.....	5	*			9	800		
Rockingham.....								
Rowan.....	12	800	0	7	16	*	0	0
Rutherford.....	4	*		1	26	700		7
Sampson.....	2				22			
Stanly.....	0				13	600		
Stokes.....	5	600	1	1	11	600	3	4
Surry.....								
Swain.....	1							
Transylvania.....								
Tyrrell.....	0				0			
Union.....	3	*		1	15	*		2
Vance.....	4	*	3	2	14	*	4	3
Wake.....	82	*			102 ^a			
Warren.....	3	*		3	16	*		3
Washington.....								
Watauga.....								
Wayne.....					8	*	1	1
Wilkes.....								
Wilson.....	3	*	2	2	18	*	7	5
Yadkin.....								
Yancey.....	1		1	1				

* Space exceeds 1,000 cubic feet. ^a. Includes 52 in house of correction.

Meteorological Report for February, 1891.

STATIONS.	TEMPERATURE.										NO. DAYS.					Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.
	Mean monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.		
Chapel Hill.....																	
Chat'oga, Tenn.	50.0	76.0	17	21.0	27	55.0	.....	29.0	2	6.0	6	5	14	9	19	10.30	N. W.
Charleston, S. C.	58.0	80.0	18	29.0	27	51.0	.....	25.0	19	5.0	14	3	12	13	12	.99	S. W.
Charlotte.....	49.0	78.0	18	23.0	27	55.0	.....	33.0	21	6.0	12	9	3	16	15	6.95	S.
Columbia, S. C.	54.0	79.0	18	25.0	27	54.0	.....	32.0	26	7.0	8	10	5	13	.....	3.70	N. E.
Hatteras	53.0	71.0	21	33.0	5	38.0	.....	22.0	28	4.0	17	2	10	16	19	3.43	N. E.
Kitty Hawk.....	52.4	76.0	17	30.0	28	46.0	.....	31.0	16	6.0	22	4	11	13	16	3.92	S. W.
Knoxv'le, Tenn	47.0	72.0	17	21.0	27	51.0	.....	30.0	2	6.0	6	7	8	13	17	10.15	E.
Lynchburg, Va..	43.6	74.0	17	17.0	5	57.0	.....	29.0	1	2.0	9	5	10	13	16	5.59	N. W.
Norfolk, Va.....	48.9	78.0	18	24.0	5	51.0	.....	30.0	1	5.0	19	5	8	15	16	5.10	N. E.
Raleigh.....	48.9	77.0	18	21.0	5	56.0	16.3	29.0	24	6.0	4	3	3	22	17	5.10	S. W.
Southport.....	53.8	68.0	16	30.0	5	38.0	.....	25.0	27	4.0	17	4	10	14	11	1.87	S. W.
Wake Forest.....																	N. E.
Wilmington	56.0	80.0	18	30.0	(a)	50.0	.....	27.0	12	5.0	8	2	11	15	11	1.54	S. W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Chapel Hill, N. C.....						
Chattanooga, Tenn	30.127	30.528	5	29.653	25	.975
Charleston, S. C.	30.146	30.534	28	29.545	26	.989
Charlotte, N. C.	30.140	30.630	15	29.410	26	1.220
Columbia, S. C.						
Hatteras, N. C.	30.180	30.660	15	29.470	26	1.190
Kitty Hawk, N. C.	30.111	30.690	15	29.467	26	1.223
Knoxville, Tenn ...	30.120	30.190	5	29.650	7	.840
Lynchburg, Va.	30.117	30.677	15	29.518	26	1.159
Norfolk, Va.	30.131	30.696	15	29.508	26	1.188
Raleigh, N. C.	30.150	30.660	15	29.520	26	1.140
Southport, N. C.						
Wake Forest, N. C.						
Wilmington, N. C.	30.170	30.620	15	29.510	26	1.110

(a.) 5th and 28th.

Mortuary Report for February, 1891.

TOWNS AND REPORTERS.	Races.	Population.		Temporary Annual death Rate per 1,000.		Typhoid Fever.	Scarlet Fever.	Malarial Fever.	Diphtheria.	Whooping-Cough.	Measles.	Pneumonia.	Consumption.	Brain Diseases.	Heart Diseases.	Neurotic Diseases.	Diarrhoeal Diseases.	All other Diseases.	Accid't & Violence.	Suicide.	Still-Born.	Total		
		By Races	Total.	By Races	Tot.																	By Races.	Deaths.	
Asheville.....	White	7,000	10,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. H. B. Weaver.....	Color'd	3,000		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charlotte.....	White	7,000	13,000	16.3	14.7	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	5	1	.....	.....	6	16	5
Dr. J. Scarr.....	Color'd	6,000		20.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	1	10	.....
Durham.....	White	4,000	7,000	6.0	6.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. N. M. Johnson.....	Color'd	3,000		8.0
Fayetteville.....	White	2,800	5,000	17.1	21.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. J. H. Marsh.....	Color'd	2,200		27.2
Goldsboro.....	White	2,500	5,000	9.6	7.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. W. H. Cobb, Jr.....	Color'd	2,500		4.8
Henderson.....	White	2,256	4,256	0.0	8.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. A. Cheatham.....	Color'd	2,000		18.0
Newbern.....	White	3,000	7,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. S. Fulcher, City Clk.....	Color'd	4,000	
Oxford.....	White	1,600	3,300	7.5	18.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. J. M. Hays.....	Color'd	1,600		28.2
Raleigh.....	White	8,000	15,000	10.5	16.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. Jas. McKee.....	Color'd	7,000		21.0
Salisbury.....	White	2,750	4,500	17.4	18.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. J. J. Summerell.....	Color'd	1,950		20.5
Tarboro.....	White	1,258	2,370	0.0	10.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. D. Williams.....	Color'd	1,112		21.5
Warrenton.....	White	1,050	2,000	0.0	0.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. P. J. Macon.....	Color'd	950		0.0
Wilmington.....	White	9,000	21,000	16.0	20.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. F. W. Potter.....	Color'd	12,000		23.0
Greensboro.....	White	4,000	6,000	8.0	4.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. E. R. Michaux.....	Color'd	2,000		6.0
Statesville.....	White	1,725	2,300	34.7	26.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. M. W. Hill.....	Color'd	575		0.0
Wilson.....	White	2,000	3,500	30.0	27.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. A. Anderson.....	Color'd	1,500		24.0
Hillsboro.....	White	600	1,000	0.0	36.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. D. C. Parris.....	Color'd	400		90.0
Monroe.....	White	1,900	2,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dr. W. C. Ramsay.....	Color'd	300	
Salem—S. W. Clerk.....	White	3,000	3,500
Dr. S. W. Clerk.....	Color'd	500	

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